CHAPTER 9

SUPERVISORY CONTROL IMPLEMENTATION

- 1. GENERAL. The programs described in Chapter 7 can be applied to existing or new systems. Most of these programs may be applied to several types of systems, but others may only be applicable to special types of systems. For example, the boiler monitoring and control program is only applicable to facilities with boiler plants. Due to the interactive nature of the programs, the inputs and/or outputs of one implemented program may provide inputs to other programs.
- 2. INSTRUMENTS AND INPUTS. Certain instruments and inputs can be common to an entire building or, in some cases, the entire UMCS. Electrical consumption and demand instrumentation do not need to be duplicated except in special cases, such as when a UMCS serves an extremely large geographical area, or multiple utility substations. When applications require OA measurement, the minimum requirement is one OA temperature and one RH instrument (when used) for each building. However, the designer may need to increase the minimum requirements to satisfy site specific building and system conditions. For example, separate OA instruments will be specified where intake temperatures of the OA measured on a roof mounted unit may vary significantly from other air intake locations, causing erroneous economizer calculations.
- 3. DIAGRAMS. Graphic diagrams of typical systems showing UMCS devices and functions for supervisory control implementation are provided in Figures 9-1 through 9-31. Failure modes will be defined by the designer for each system's controlled devices in the event of a field equipment panel malfunction. Failure modes will be based on climate, type of system, and user requirements. The failure modes shown are for example purposes only. Figures 9-19 through 9-31, which are not accompanied by corresponding database tables, are provided for illustrative purposes only.
- 4. TABLES. Database tables listing UMCS software and settings applied to typical systems are provided in Tables 9-1 through 9-18. The designer will generate a separate database table for each system to be controlled or monitored by the UMCS. Two or more identical systems within the same building, having the same occupancy schedule, may be listed on the same database table. The table's contents will be tailored to the system being controlled for each specific application.
- 5. SYMBOLS AND ABBREVIATIONS. A listing of symbols and abbreviations used in the system schematics is provided in Appendix B.
- 6. ADDITIONAL APPLICATIONS. Additional utility systems monitoring and control applications which have been provided through UMCS, and which have proven beneficial in energy savings, demand savings, labor or other cost savings, are listed below. Each application listing includes typical monitored or controlled parameters. Additional applications will be evaluated for feasibility on individual UMCS projects.
 - a. Electric Networks (High and Low Tension).
 - (1) Metering of primary KV.
 - (2) Breaker status.
 - (3) Remote breaker control.
 - (4) Ground fault measurement and alarm
 - (5) Power factor measurement

- b. Stand-by Generators.
 - (1) Unit status.
 - (2) Scheduled exercising.
 - (3) Fuel storage tank levels.
 - (4) Generator voltage and load.
 - (5) Run-time monitoring.
- c. Power Plants.
 - (1) Status.
 - (2) Efficiency.
 - (3) Fuel storage.
 - (4) Tank level.
 - (5) Run-time monitoring.
- d. Uninterruptible Power Supplies.
 - (1) Status.
 - (2) Battery voltage and charging current.
 - (3) UPS output voltage and load.
- e. Exterior Lighting.
 - (1) Time scheduled control.
 - (2) Intensity reduction after "peak" hours.
- f. Interior Lighting.
 - (1) Time scheduled control.
- g. Transformer Substations.
 - (1) Status.
 - (2) Voltage and load.
 - (3) Transformer temperature.
- h. Switching Stations.
 - (1) Status.
 - (2) Breaker control.
- i. Frequency Converters.

- (1) Status.
- (2) Voltage, frequency, and load.
- (3) Run-time monitoring.
- j. Elevators.
 - (1) Machine room temperature alarm.
 - (2) Common alarm from control pane.
- k. Water Treatment Systems.
 - (1) Status.
 - (2) Hardness of water (ppm).
 - (3) Consumption.
- I. Sewer System.
 - (1) Flow/level in manholes and retention basins.
 - (2) Status and run-time of sewage lift pumps.
- m. Chlorination (Including Electrolytic) and Fluoridation Systems.
 - (1) Status.
 - (2) Chlorine and fluoride concentration (water analysis).
 - (3) Chlorine and fluoride tank levels.
 - (4) Water consumption.
- n. Booster Stations.
 - (1) Status.
 - (2) Alternating of pumps.
 - (3) Demand limiting of pumps.
 - (4) Pressure.
 - (5) Consumption.
- o. Water Pumping Stations.
 - (1) Status.
 - (2) Demand limiting of pump motors.
 - (3) Pressure.
 - (4) Consumption.

- p. Irrigation Systems.
 - (1) Scheduled operation based on rainfall (and, in some cases, residual moisture in the soil).
- q. Boiler Plants (Coal, Oil, and Gas).
 - (1) Energy consumption/heat generation.
 - (2) Fuel storage tank levels.
- r. District Heat Supply.
 - (1) Metering of demand/consumption.
 - (2) Night setback.
- s. Heating Distribution.
 - (1) Night setback.
 - (2) Leak detection for distribution piping.
- t. Domestic Hot Water Generators.
 - (1) Night setback.
- u. Cold Storage and Refrigeration Systems.
 - (1) Unit status/general alarms.
 - (2) Temperature.
 - (3) Demand limiting (compressor motors).
- v. Air Conditioners, including Window Air Conditioners.
 - (1) Time scheduled control.
 - (2) Demand limiting.
- w. High Pressure Steam Plants.
 - (1) Status.
 - (2) Fuel consumption/tank level.
 - (3) Steam pressure.
 - (4) Steam flow.
- x. Heat Pumps.
 - (1) Unit status.
 - (2) Time scheduled control.
 - (3) Night setback.

- (4) Demand limiting.
- y. Laundry Room Equipment (Electric Clothes Dryers).
 - (a) Demand limiting.
- z. Vending Machines.
 - (1) Demand limiting.
 - (2) Time-scheduled control of electrical power supply.
- aa. Saunas.
 - (1) Time scheduled control.
 - (2) Demand limiting.
- bb. Humidifiers.
 - (1) Status.
 - (2) Demand limiting of electric heating element.
- cc. Weather Stations.
 - (1) Relative humidity.
 - (2) Wind direction.
 - (3) Wind velocity.
 - (4) Cumulative rainfall.
 - (5) Heating degree days and cooling degree days calculation.
 - (6) Temperature.
- dd. Storage Tanks.
 - (1) Level alarm (high for waste, low for consumed liquid such as fuel).
 - (2) Leak detection.
 - (3) Scheduled waste removal.
- ee. Ground Water.
 - (1) Measurement of level and pH/value.
- ff. Medical Gas Systems (Oxygen, Vacuum, etc.).
 - (1) Status.
 - (2) Pressure.
 - (3) Operating hours of compressors, etc..

- gg. Compressed Air Systems.
 - (1) Status.
 - (2) Pressure.
 - (3) Operating hours of compressors, etc..
 - (4) Demand limiting of compressor motors.
- hh. Sewage Treatment Plans.
 - (1) Status.
 - (2) Operating hours of equipment.
 - (3) Metering of treated sewage in CFM.
 - (4) Measuring of chlorine and pH/values.
- ii. Water Distribution.
 - (1) Metering of consumption.
 - (2) Leak detection.



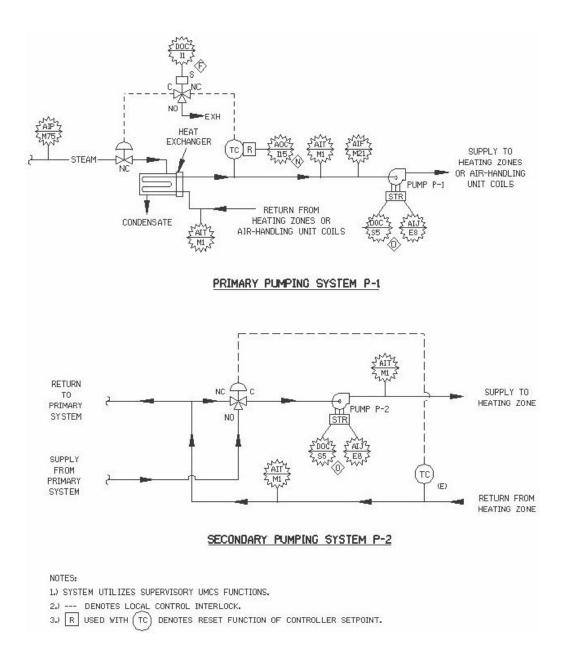


Figure 9-1. Steam/HW Converter and Primary/Secondary Heating System.



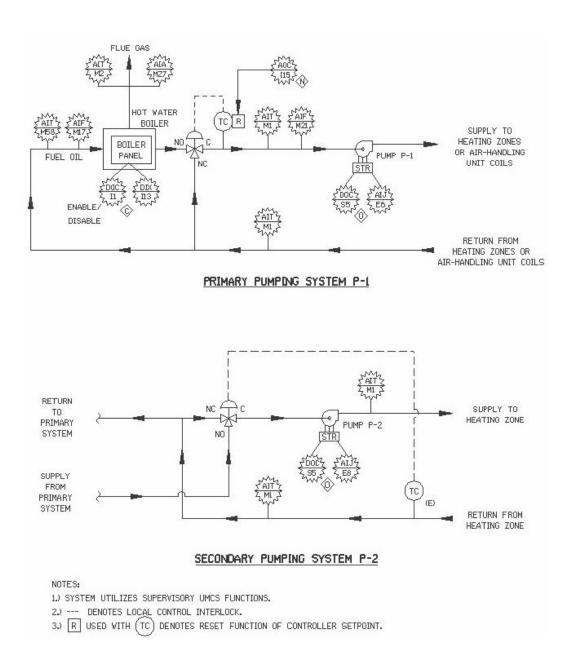


Figure 9-2. Hot Water Boiler and Primary/Secondary Heating System.



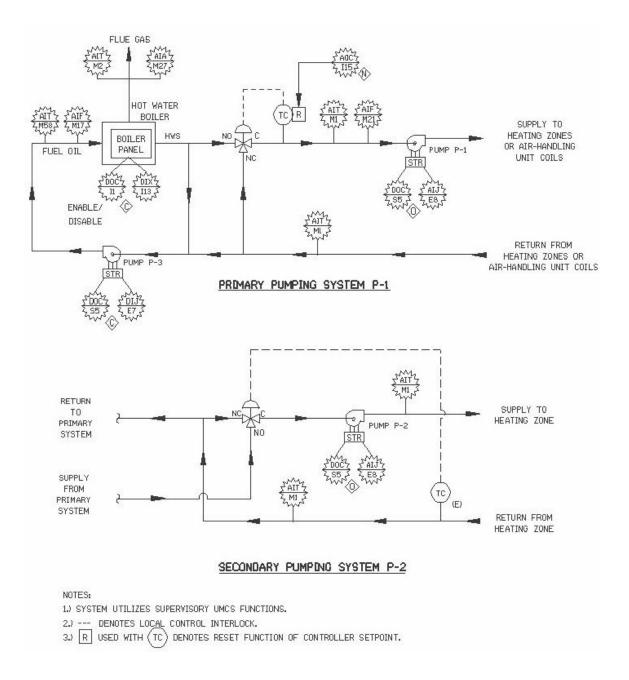


Figure 9-3. Hot Water Boiler with Constant Volume Circulating Loop and Primary/Secondary Heating System.



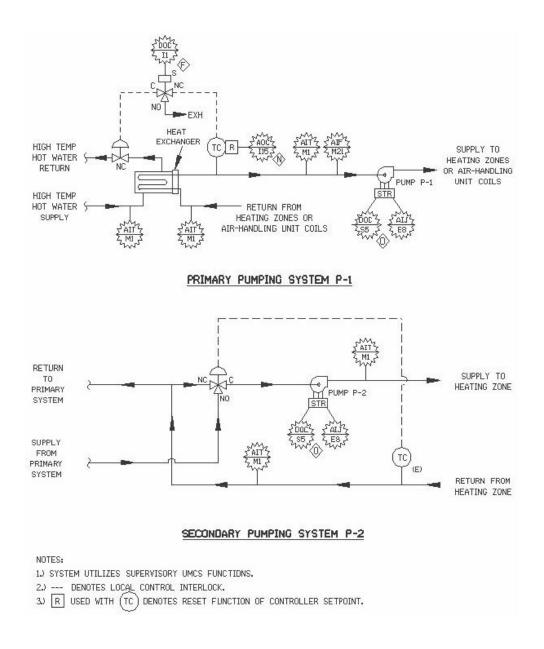


Figure 9-4. High Temperature HW/HW Converter and Primary/Secondary Heating System.



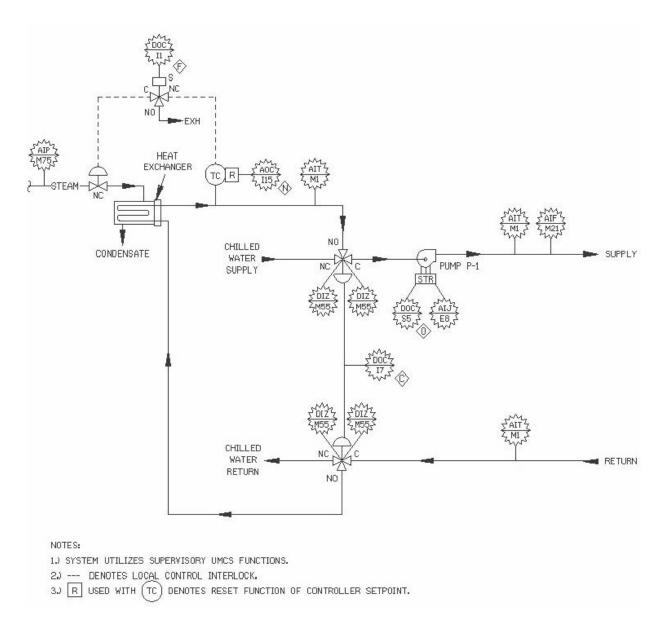


Figure 9-5. Steam/HW Converter with Dual Temperature Distribution System.



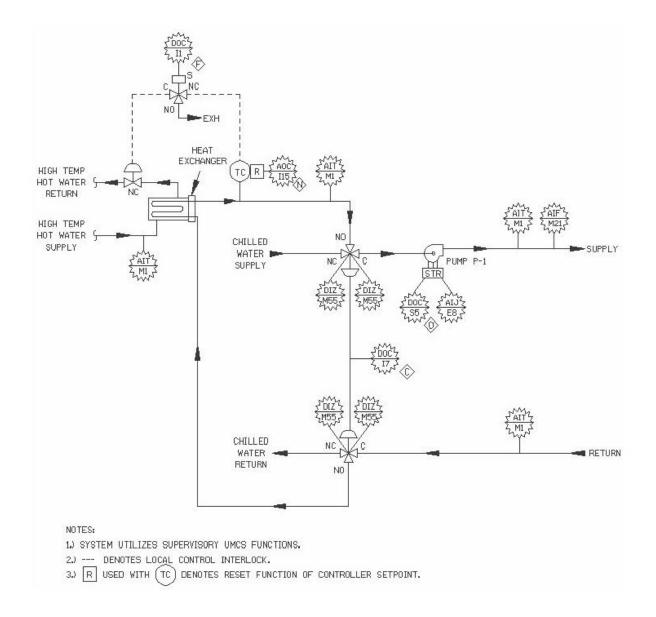


Figure 9-6. High Temperature HW/HW Converter with Dual Temperature Distribution System.



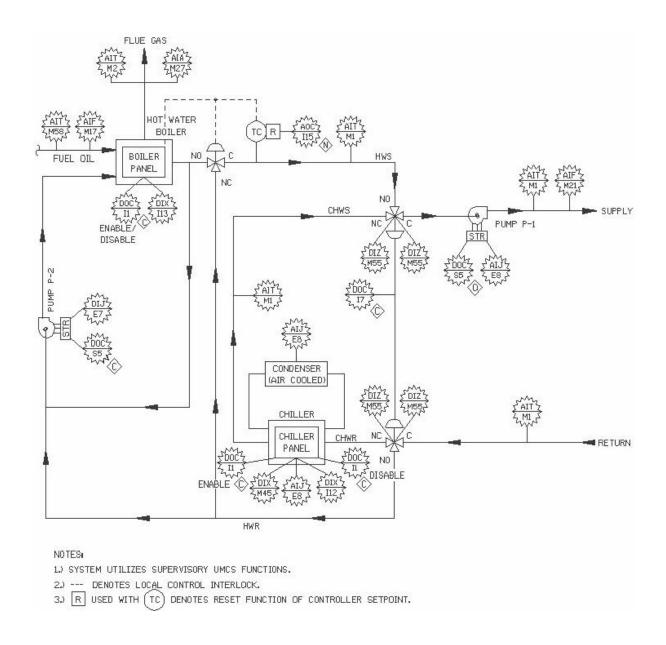


Figure 9-7. Dual Temperature System with Constant Volume Hot Water Circulating Loop and Air-Cooled Chiller.



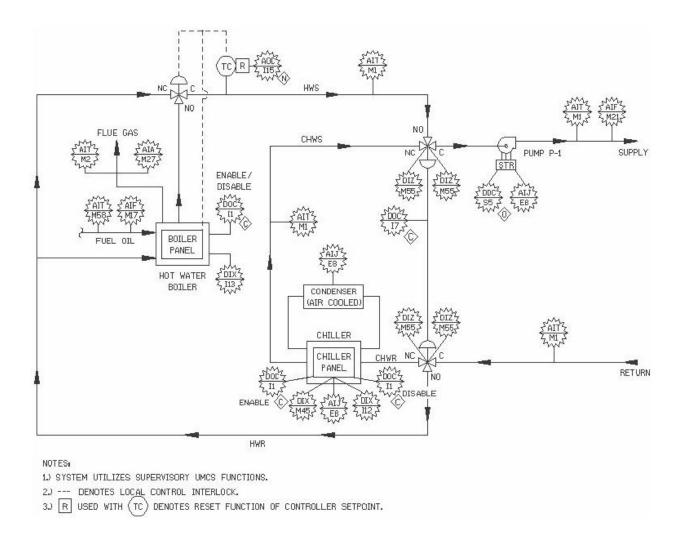


Figure 9-8. Dual Temperature System with Hot Water Boiler and Air-Cooled Chiller.



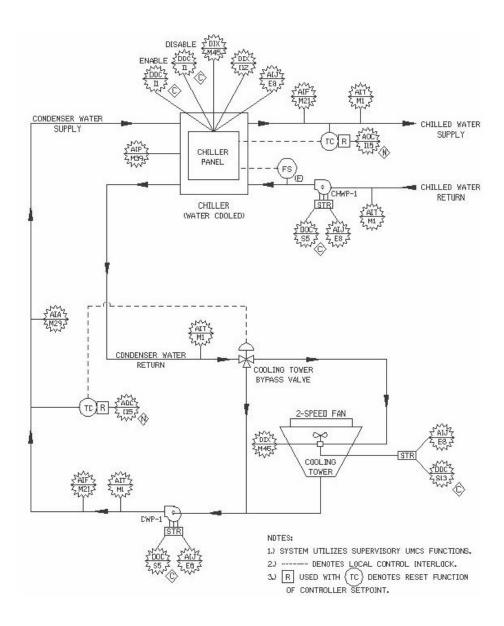


Figure 9-9. Water-Cooled Chiller.



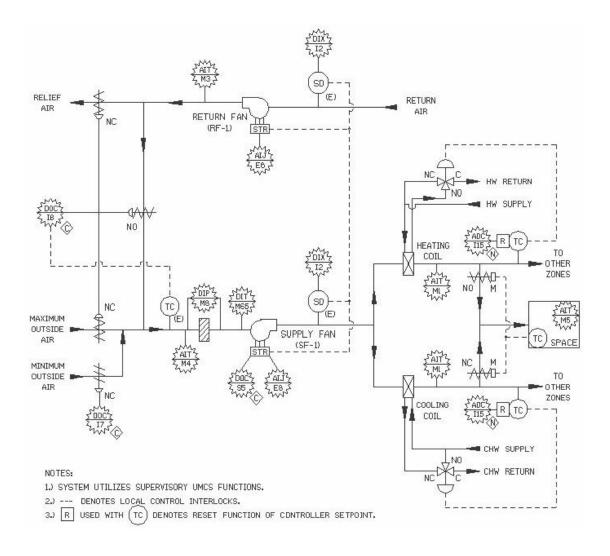


Figure 9-10. Multi-Zone Air Handling System w/Hot Water and Chilled Water Coils.



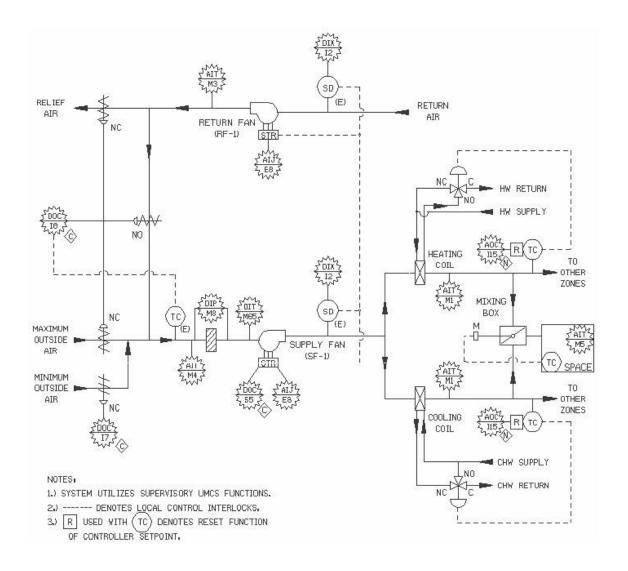


Figure 9-11. Dual Duct Air Handling System with Hot Water and Chilled Water Coils.



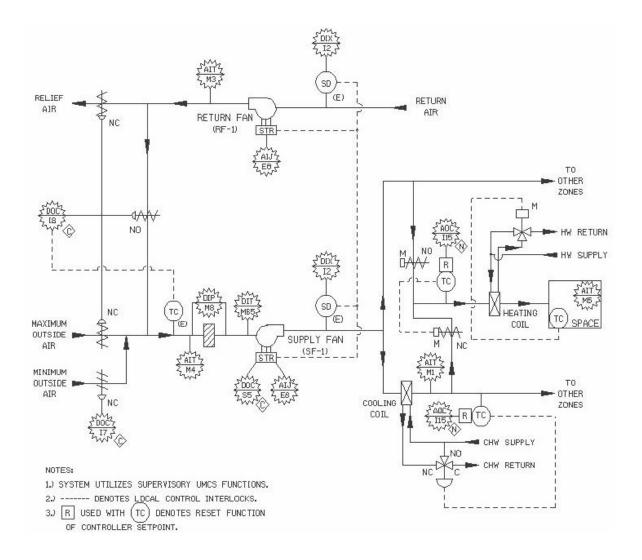


Figure 9-12. Bypass Multi-Zone Air Handling System with Hot Water and Chilled Water Coils.



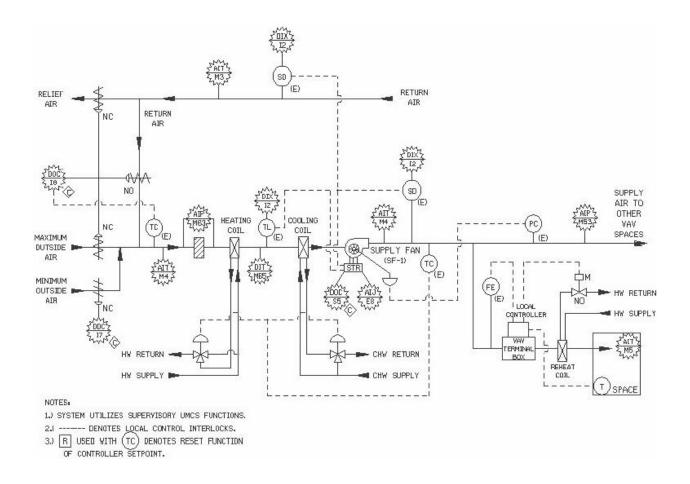


Figure 9-13. VAV Air Handling System with Hot Water and Chilled Water Coils.



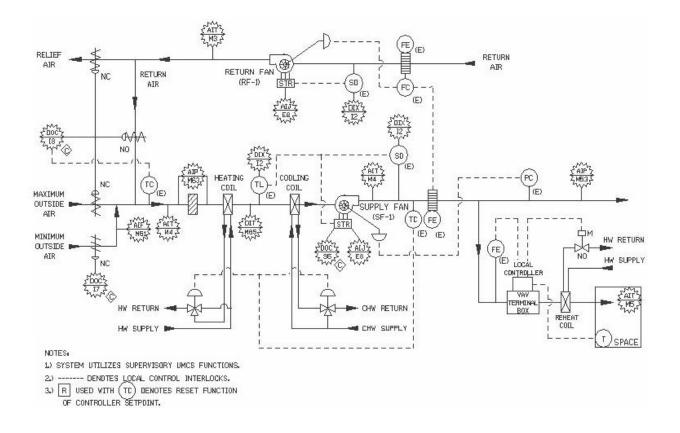


Figure 9-14. VAV Air Handling System with Return Air Fan and Hot Water/Chilled Water Coils.



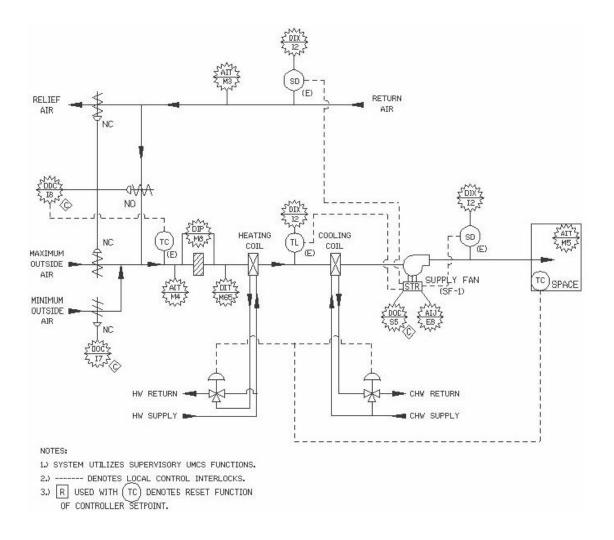


Figure 9-15. Single Zone Air Handling System with Hot Water and Chilled Water Coils.



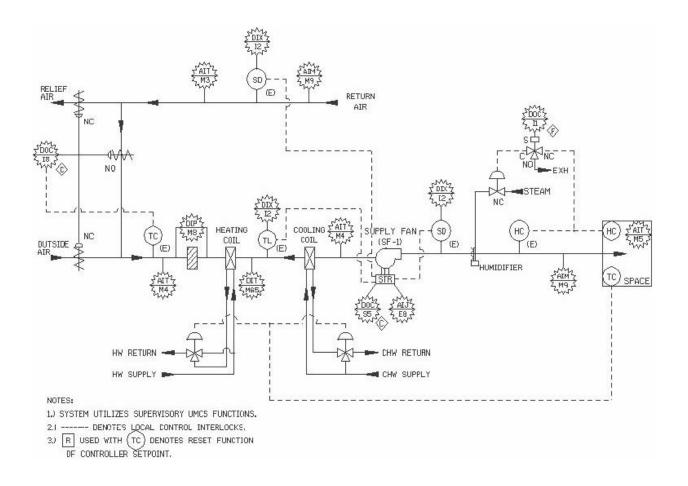


Figure 9-16. Single Zone Air Handling System with Humidification.



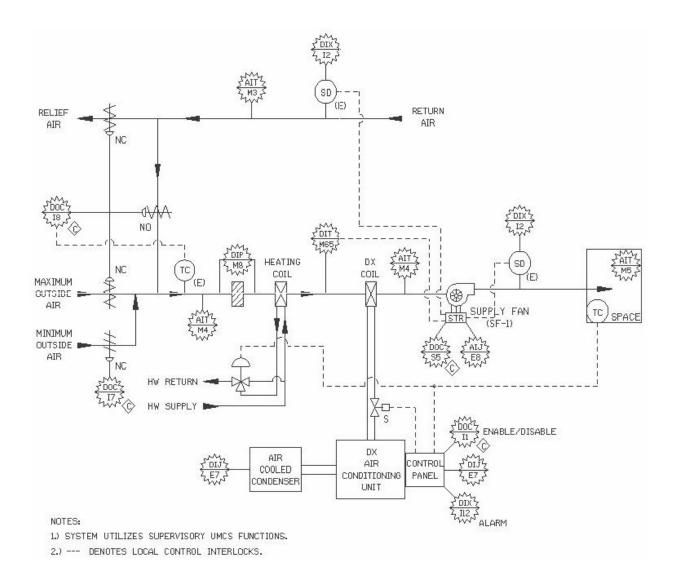


Figure 9-17. Single Zone Air Handling System with Hot Water and DX Refrigeration Coils.



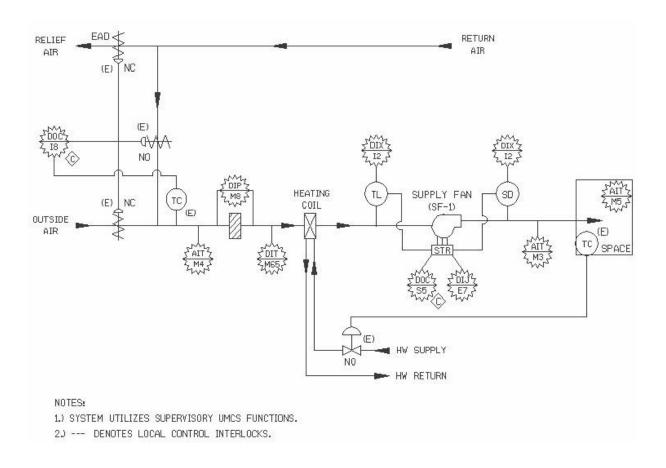


Figure 9-18. Heating and Ventilating System.



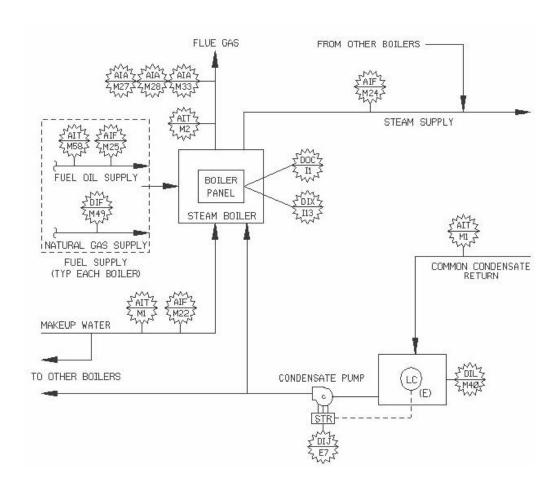


Figure 9-19. Steam Boilers.



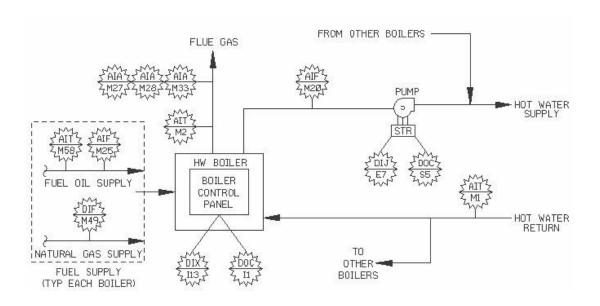


Figure 9-20. Hot Water Boilers.

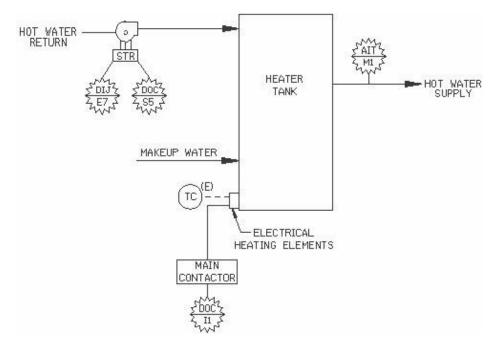


Figure 9-21. Electric Domestic Hot Water System.

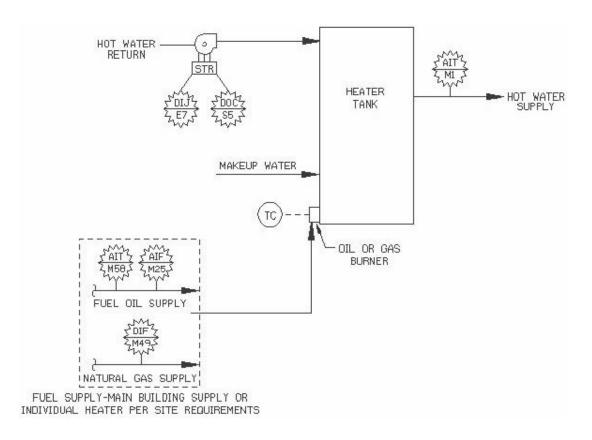


Figure 9-22. Oil/Gas Domestic Hot Water System.

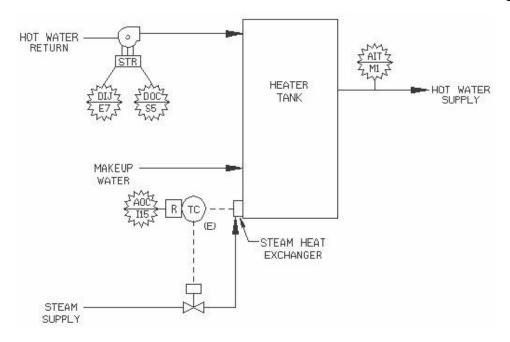


Figure 9-23. Steam Domestic Hot Water System.

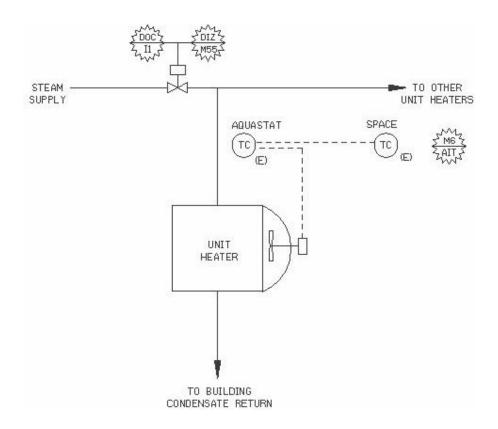


Figure 9-24. Steam Unit Heaters.

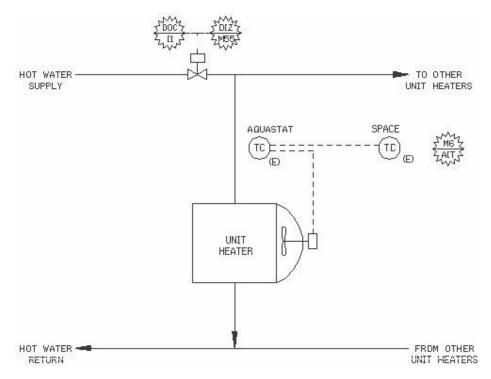


Figure 9-25. Hot Water Unit Heaters.

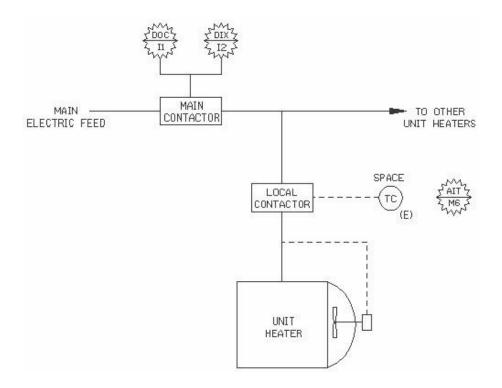


Figure 9-26. Electric Unit Heaters.

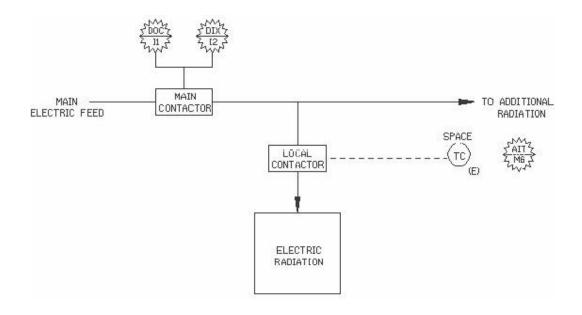


Figure 9-27. Electric Radiation.

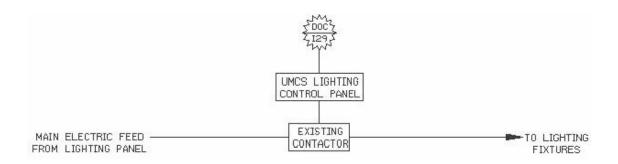


Figure 9-28. Lighting Control.

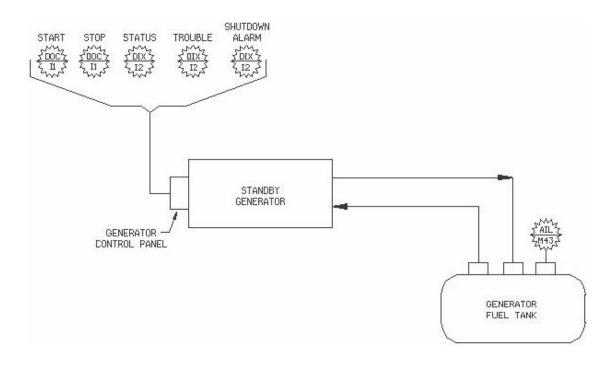


Figure 9-29. Standby Generator System.

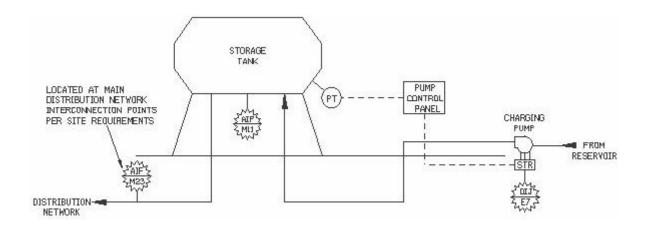


Figure 9-30. Water Storage and Distribution System.

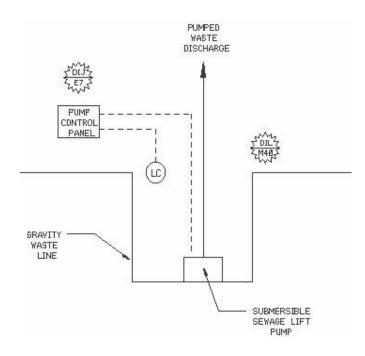


Figure 9-31. Sewage Lift System.

Table 9-1. Database Table for Steam/HW Converter and Primary/Secondary Heating System.

PARAMETERS										
		000	COOLING	C. Constitution of the Con	The state of the s		HEATING		SELECTED APPLICATION PROGRAMS	IS
	DEFAULT	DEFAULT	ALARH	DEHAND	DEFAULT	DEFAULT	ALARH	DEMAND	OPTIMUM START/STOP	* *
	SELFOIM	SELFOIRI SELFOIRI	25111193	SEIFUIII	SEIFUINI	SELFUIN	>E1111163	SEIFUINI	FEMTILATION/RECIRCULATION	
PRIMARYHWSUPPLYTEMP					SEE RESET SCH.		SP +4-5 DEG.F		HOT DECK/COLD DECK TEMPERATURE RESET	131
									REHEAT COIL RESET	
PRIMARY HW RETURN TEMP							XXDEG.F		BOILER MONITORING & CONTROL	
PRIMARYSYSTEMFLOW							(MOT) MAEN		CHILLED WATER TEMPERATURE RESET	
									CONDENSER WATER TEMPERATURE RESET	
SECONDARYHWSUPPLYTEMP							XXX DEG. F		HOT WATER OA RESET	H
SECONDARY HW RETURN TEMP							XXX DEG. F			
STEAMPRESSURE							##PSI		REFER TO SEQUENCE OF OPERATIONS FOR	
									ADDITIONAL SOFTWARE, SETTING AND OPERATIONAL REQUIREMENTS	
									DEMAND LIMITING	
									SUMMER STEP 1	
									SUMMER STEP 2	
									SUMMER STEP 3	
									WINTER STEP 1	
									WINTER STEP 2	
									ADDITIONAL SETTINGS	
									SCHEDULE SCHEDULE	
									250 +	
den.		88	OCCUPANCT SCHEDULE	SHEDULE		88				
DAT OF WEEK!									-	
HOLIDAT	OCCUPIED PERI	OCCUPIED PERIOD 1	OCCUPIED PERIOD 2	ERIODZ	OCCUPIED PERIOD 3	OPIED PERIOD 3	OCCUPIED PERIOD	ERIOD 4		
POLOG	CITE CERCIFIC	PECIFIC	CITE CRECIEIC	0110	20110	POLICE	CITECOF	0110		
TUESDAY	SITE SPECIFIC	ECIFIC	SITESPECIFIC	CIFIC	SITESF	SITESPECIFIC	SITESPECIFIC	CIFIC	_	
WEDNESDAY	SITES	SITE SPECIFIC	SITE SPECIFIC	CIFIC	SITESF	SITE SPECIFIC	SITE SPECIFIC	DIFIC	_	SECONDARY
THURSDAY	SITES	SITESPECIFIC	SITESPECIFIC	CIFIC	SITESF	SITESPECIFIC	SITESPECIFIC	CIFIC		PIIMPOFF
FRIDAY	SITES	SITESPECIFIC	SITESPECIFIC	OIFIC	SITESF	SITESPECIFIC	SITE SPECIFIC	OIFIC		
SATURDAY	SITES	SITESPECIFIC	SITE SPECIFIC	OIFIC	SITESF	SITESPECIFIC	SITESPECIFIC	OIFIC	нз	
HOLIDAY	SITES	PECIFIC	SITE SPECIFIC	OIFIC	SITESF	ECIFIC	SITE SPECIFIC	SIFIC	14	
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1242 121201101	CAD	CABACITE	MOTOR UP	HEDOLE	MAMIEACTIBED		None Jeroite	100		
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PUMP P-2	SYSTEM SPECIFIC	SPECIFIC	SYSTEMSPECIFIC	SYSTEM	SYSTEM SPECIFIC		SYSTEM SPECIFIC		H	
									+ 09	
									1 0	T
									-20 0 80	8
									OA TEMP (DEG F)	

Table 9-2. Database Table for Hot Water Boiler and Primary/Secondary Heating System.

PARAMETERS PRINJARY HW SUPPLY TEMP PRINJARY HWRETURNI TEMP		000000		_						
RIMARY HUSUPPLYTEMP RIMARY HURETURN TEMP		000	COOLING	The second second second second second	A CONTRACTOR OF THE PROPERTY O		HEATING		SELECTED APPLICATION PROGRAMS	6
RIMARY HW SUPPLY TEMP	DEFAULT OCCUPIED	DEFAULT UNOCCUPIED	ALARM LIMIT	DEMAND	DEFAULT OCCUPIED	DEFAULT UNOCCUPIED	ALARH	DEHAND	SCHEDULED START/STOP OPTIHUH START/STOP	
RMARY HW SUPPLY TEMP	SETPOINT	SETPOINT	SETTINGS	SETPOINT	SETPOINT	SETPOINT	SETTINGS	SETPOINT	ECONOMIZER	
RIMARY HW RETURN TEMP					SEERESETSCH		SP ++- 5 DEG.F		FEMTILATION/RECIRCULATION	1
					Mana		2 93000		HOT DECK/COLD DECK TEMPERATURE RESET	-
							on DEG. r		POLICE MONITORING & CONTROL	
PRIMARYSYSTEMFLOW		****					(MOTUM)		CHILLER SELECTION	
						•			CHILLED WATER TEMPERATURE RESET	•
SECONDARYHWSUPPLYTEMP							XXX DEG. F		CONDENSER WATER TEMPERATURE RESET	
									HOT WATER OA RESET	
SECONDARY HW RETURN TEMP							XXXDEG.F			
FLUE GAS TEMP							XX DEG. F			
									REFER TO SEQUENCE OF OPERATIONS FOR	
FLUEGASO2							88 × 02		ADDITIONAL SOFTWARE, SETTING AND	
110 13 13 13							CHO DIMAGONA		OPERATIONAL REQUIREMENTS	
							martifean)		CHAMES CITES	
161 TEMP							A SUCK		ATTACK ATER 2	
									SUMMER STEP 3	
		•							WINTER STEP 1	
									VINTER STEP 2	
									ADDITIONAL SETTINGS	
									PRIMART HW SUPPLY TEMP RESET	
									SCHEDULE SCHEDULE	
			a consumano	- Contonia						
100 to 10			OCCUPANCE 3	CHEDOLE					=1	
HOLIDAT	OCCUPIE	OCCUPIED PERIOD 1	OCCUPIED PERIOD 2	PERIOD 2	OCCUPIED PERIOD 3	PERIOD 3	OCCUPIED PERIOD 4	PERIOD 4		
SUNDAY	SITES	SITESPECIFIC	SITESPECIFIC	COLFIC	SITESP	SITE SPECIFIC	SITESPECIFIC	COFFIC	500	
MONDAY	SITE SPECIFIC	PECIFIC	SITESPECIFIC	TOIFIC	SITESPECIFIC	*ECIFIC	SITESPECIFIC	COFIC		
TUESDAY	SITES	SITESPECIFIC	SITESPECIFIC	COLFIC	SITESF	SITESPECIFIC	SITESPECIFIC	COLFIC	_	SECONDARY
WEDNESDAY	SITE SPECIFIC	PECIFIC	SITE SPECIFIC	COIFIC	SITESPECIFIC	PECIFIC	SITE SPECIFIC	COFFIC	934	
THURSDAY	SITES	SITESPECIFIC	SITE SPECIFIC	COLFIC	SITE SPECIFIC	PECIFIC	SITESPECIFIC	COIFIC	150 +	PUMP OFF
FRIDAY	SILES	SITESPECIFIC	SITESPE	COFIC	SITESPECIFIC	PECIFIC	SITE SPI	COFFIC	4H	
SaTURDAY	SITES	SITE SPECIFIC	SITESPE	ECIFIC	SITESF	SITESPECIFIC	SITESPECIFIC	CIFIC	31	
HOLIDAY	SITES	PECIFIC	SITESPE	COIFIC	SITESF	PECIFIC	SITESPI	COIFIC	416	
			EQUIPMENT SCHEDULE	CHEDULE					+ 00 +	
EQUIPMENT NAME	CAP	CAPACITT	MOTOR HP	MANUFACTURER	CTURER		HODEL/SERIES		ıs A	
7-0 0 XII 0	Matono	COLUMN	ODER COROLLO	Matono	OUT OF THE OUT OUT OF THE OUT OUT OF THE OUT OF THE OUT OUT OUT OUT OUT OUT OUT OUT OUT		OUTEN GOOD		н	
PUMPP-2	MALSAS	SYSTEM SPECIFIC	SYSTEMSPECIFIC	SYSTEMS	SPECIFIC		SYSTEM SPECIFIC		+ 02	
HWBOILER	SYSTEMSPECIFIC	SPECIFIC	SYSTEMSPECIFIC	SYSTEM	SYSTEM SPECIFIC		SYSTEMSPECIFIC		-	
									0	Ī
									.50 0 60	. 8
									OA TEMP (DEG F)	

Table 9-3. Database Table for Hot Water Boiler with Constant Volume Circulating Loop and Primary/Secondary Heating System.

PARAHETERS PRINARY HIV SUPPLY TEMP					JUNEAU CHANGE AND ADDRESS OF					
МАКУНИ SUPPLYTEMP		Ins			100000000000000000000000000000000000000	2000	WINTER		SELECTED APPLICATION PROGRAMS	0.000
MARY HW SUPPLY TEMP	DEFAULT	DEFAULT	ALARH	DEMAND	DEFAULT	DEFAULT		DEMAND	SCHEDULED START/STOP	H
MARYHWSUPPLYTEMP	SETPOINT	UNOCCUPIED	SETTINGS	SETPOINT	SETPOINT	UNOCCUPIED	SETTINGS	SETPOINT	OPTIMUM START/STOP ECONOMIZER	M
					SEERESETSCH		SP+4-50EG.F		FENTIL ATION/RECIRCULATION	
AAA DII III DEALIDII AAAD									HOT DECK/COLD DECK TEMPERATURE RESET	
HANT HWALLUM I LITE							XXDEG.F		REHEAT COIL RESET	
									BOILER MONITORING & CONTROL	
PRIMARYSYSTEMFLOW							(MOT) MABAN		CHILLER SELECTION	-
									CHILLED WATER TEMPERATURE RESET	
SECONDARY HW SUPPLY TEMP							XXXDEG.F		COMDENSER WATER TEMPERATURE RESET	
OND A BUILD ON THE BUILD OF THE							2 220000			1
FLUEGASTEMP							XX DEG. F			-
						•			REFER TO SEQUENCE OF OPERATIONS FOR	
FLUE GAS 02							XX x 02		ADDITIONAL SOFTWARE, SETTING AND	
									OPERATIONAL REQUIREMENTS	
FUELFLOW							XXGPM(LOW)		SIMMER STEP 1	
FUEL TEMP							XX DEG. F		SUMMER STEP 2	-
									SUMMER STEP 3	-
									VINTER STEP 1	-
	0								MINTER STEP 2	
									ADDITIONAL SETTINGS	9
									PRIMART HW SUPPLY TEMP RESET	
									SCHEDULE	
100000			UCCUPANCT SCHEDULE	CHEDOLE			7.0			
HOLIDAY		TOTAL CARLOS		040163	T I CAS CATOLICA				_	
SUNDAY	SITES	SITE SPECIFIC	SITE SPECIFIC	CIFIC	SITESP	SITE SPECIFIC	SITESPECIFIC	FIC	200	
MONDAY	SITE SPECIFIC	PECIFIC	SITE SPECIFIC	CIFIC	SITESP	SITE SPECIFIC	SITE SPECIFIC	FIC		
TUESDAY	SITES	SITESPECIFIC	SITE SPECIFIC	CIFIC	SITESP	SITESPECIFIC	SITE SPECIFIC	FIC	(a	4DAR
WEDNESDAY	SITESPECIFIC	PECIFIC	SITE SPECIFIC	CIFIC	SITESP	SITESPECIFIC	SITE SPECIFIC	FIC	_	
THURSDAY	SITES	SITESPECIFIC	SITESPE	CIFIC	SITESF	SITESPECIFIC	SITESPECIFIC	FIC	150 + PUMPOFF	OFF.
FRIDAY	SITES	PECIFIC	SITE SPECIFIC	CIFIC	SITESF	SITE SPECIFIC	SITE SPECIFIC	FIC		
SATURDAY	SITES	SITE SPECIFIC	SITESPE	CIFIC	SITESF	SITE SPECIFIC	SITE SPECIFIC	FIC	131	
HOLIDAY	SITES	PECIFIC	SITESPE	OIFIC	SITESF	ECIFIC	SITESPECI	FIC	17.	
			FOIIIPHENT SCHEDIII F	SHEDIII F					+ 001	1
EQUIPMENT NAME	CAP	CAPACITT	HOTOR HP	MANUFACTURER	CTURER		HODEL/SERIES	5,000 (1)	ns A	
P-d dMIId	OISIOSES MATSOS	CPECIFIC	CVSTEM SECURIO	Matana	CVCTEM CDECIFIC		CVSTEM SPECIFIC		н	
PUMP P-2	SYSTEM	SYSTEM SPECIFIC	SYSTEM SPECIFIC	SYSTEMS	SYSTEM SPECIFIC		SYSTEM SPECIFIC		+ 09	
PUMPP-3	SYSTEMSPECIFIC	SPECIFIC	SYSTEMSPECIFIC	SYSTEM	SYSTEMSPECIFIC		SYSTEMSPECIFIC			
HWBOILER	SYSTEMSPECIFIC	SPECIFIC	SYSTEMSPECIFIC	SYSTEM	SYSTEMSPECIFIC		SYSTEMSPECIFIC			
									- 8	Τ ⁸
									.09 0 07: I	8
									OA TEMP (DEG F)	

Table 9-4. Database Table for High Temperature HW/HW Converter and Primary/Secondary Heating System.

PARAMETERS			•	TSIEM UPERAL	STSIEM OPEKALING PAKAMELEKS					
		000	3			HEATING	TIME		SELECTED APPLICATION PROGRAMS	8
	DEFAULT	DEFAULT	ALARM	DEMAND	DEFAULT	DEFAULT	ALARM	DEMAND	SCHEDULED STARTISTOP	M
	SETPOINT	SETPOINT	SETTINGS	SETPOINT	SETPOINT	SETPOINT	SETTINGS	SETPOINT	OPTIMUM START/STOP ECOHOMIZER	-
									*ENTILATIOM/RECIRCULATIOM	
PRIMARY HW SUPPLY TEMP					SEE RESETSCH.		SP++-50EG.F		HOT DECK/COLD DECK TEMPERATURE RESET	-
									KEMEAL COIL KESET	÷
							and the state of t		CHILLER SELECTION	
PRIMARYSYSTEMFLOW	0				160 DEG. F		XX GPM (LOW)		CHILLED WATER TEMPERATURE RESET	-
									CONDENSER WATER TEMPERATURE RESET	
SECONDARY HW SUPPLY TEMP.							SP+/-50EG.F		HOT WATER OA RESET	H
SECONDARY HWRETURN TEMP							XXX DEG. F			
HIGH TEMP HW SUPPLY							XX DEG. F		REFER TO SECUENCE OF OPERATIONS FOR	
									ADDITIONAL SOFTWARE, SETTING AND	
									OPERATIONAL REQUIREMENTS	
									SUMMER STEP 1	
									SUMMER STEP 2	ļ
									SUMMER STEP 3	
									VINTER STEP 1	-
									WINTER STEP 2	
									Applitional Certines	
						•				
									PRIMART SUPPLT TEMP RESET SCHEDULE	
	•						•		250 T	
			OCCUPANCT SCHEDULE	HEDULE						
DAT OF WEEK	OCCUPIED PERIOD	D PERIOD 1	OCCUPIED PERIOD 2	FRIOD 2	OCCUPIED	OCCUPIED PERIOD 3	OCCUPIED PERIOD 4	2100 4		
SUNDAY	SITES	SITE SPECIFIC	SITESPECIFIC	DIFIC	SITESF	SITE SPECIFIC	SITE SPECIFIC	01	, m	
MONDAY	SITES	SITE SPECIFIC	SITESPECIFIC	OIFIC	SITESF	SITESPECIFIC	SITESPECIFIC	2		
TUESDAY	SITES	SITESPECIFIC	SITE SPECIFIC	OIFIC	SITESF	SITESPECIFIC	SITESPECIFIC	0	(a	970
WEDNESDAY	SITE SPECIFIC	PECIFIC	SITESPECIFIC	CIFIC	SITESF	SITESPECIFIC	SITE SPECIFIC	2	_	-
THURSDAY	SITES	SITESPECIFIC	SITE SPECIFIC	OIFIC	SITES	SITESPECIFIC	SITESPECIFIC	2 9	- C 150 + PUMPOFF	34
SATURDAY	SITE	PECIFIC	SITE SPECIFIC	OFFIC	SITES	FOIFIC	SITESPECIF	2 2	д н:	
HOLIDAY	SITES	SITESPECIFIC	SITESPECIFIC	OIFIC	SITESF	SITESPECIFIC	SITESPECIFIC	2	, , , , , , , , , , , , , , , , , , ,	
									144	ı
			EQUIPMENT SCHEDULE	HEDULE					3	
ECOIPMENT NAME	Car	Caracita	MOIOR HP	MANUFACTORER	CIUKER		MUDELFSERIES		Series 1	- 5
PUMP P-2	SYSTEM	SYSTEMSPECIFIC	SYSTEMSPECIFIC	SYSTEM	SYSTEMSPECIFIC		SYSTEMSPECIFIC		Walue; 100	9
									3 4 58	Τ
									.20 0 60	8
		•							OA TEMP (DEG F)	

Table 9-5. Database Table for Steam HW/Converter with Dual Temperature Distribution System.

	PARAHETERS SUPPLYTENP			×	ISIEN OFENHI	NO L HUMULEU.					
	SUPPLYTENP		000	HING				TIME		SELECTED APPLICATION PROCE	SMS
SCOUNTION STETUNE ST	SUPPLYTENP	DEFAULT	DEFAULT	ALARH	DEMAND	DEFAULT		ALARM	DEHAND	SCHEDULED START/STOP	1
STATE STAT	SUPPLYTEMP	OCCUPIED	UNOCCUPIED	LIMIT	LIMIT	OCCUPIED	UNOCCUPIED	SETTINGS	LIMIT	OPTIMUM START/STOP ECONOMIZER	
STOREGISTION STOREGISTON	SUPPLYTEMP IPPLYTEMP									*EMTILATION/RECIRCULATION	
Miles Mile	JPPLY TEMP	SEERESETSCH.		SP+4-5DEG.F		SEE RESET SCH.		SP+4-50EG.F		HOT DECKACOLD DECK TEMPERATURE R	ESET
March Marc	PPLY IEMP									REHEAT COIL RESET	
STATE STAT				XX DEG. F				ANDEG. P		CHILLER SELECTION	
MINISTER MINISTER	TURNTEMP			XXDEG.F				XXDEG.F		CHILLED WATER TEMPERATURE RESET	
Mathematical Control										CONDENSER WATER TEMPERATURE RES	13
Column	STEMFLOW			XXGPM(LOW)				XX GPM (LOW)		HOT WATER OA RESET	
PRIVATE CONTINUE AND PRINCE PRIVATE CONTINUE AND PRINCE	EAMPRESSURE			XX PSI				XXPSI			
According to the control of the co										REFER TO SEQUENCE OF OPERATIONS	80
DAY OF VETEX COCCUPANCE SCHICKUITE COCCUPANCE SC										ADDITIONAL SOFTWARE, SETTING AN	9
STATE										OPERATIONAL RECOIREMENTS	
COUPLING COUNTING COUNTING										CHAMO LIMING	
Data of Verset Cocourtic Person Cocourtic Per										SUMMER STEP 2	
NINTERSTEP NINTERSTEP										SUMMER STEP 3	
ADDITION COUNTY			•							WINTER STEP 1	
COCOUNTED PERIOD COCOUNTED P										WINTER STEP 2	
AND OCCUPANCE STITESPOIND										DOMANDO INNOCATOR	
DAT OF VEICE DAT										CBUILING THURSTON	
Occupancy Occupancy Shifts										PRIMARY SUPPLY TEMP RESE	_
DATO F VEEK DATO F VEEK DATO F VEEK DATO F VEEK HOLIDAT OCCUPIED PERIOD 1 OCCUPIED PERIOD 2 OCCUPIED PERIOD 4											
DAY OF VEEK COCUPTED PERIOD COCUPTED PERIO				OCCUPANCT S	CHEDULE					000	
SUNDAY OCCUPIED PERIOD OCCUPIED PERIOD OCCUPIED PERIOD	DAT OF WEEK!		, i								
THESTON STIESPECTIC STIE	HOLIDAT	OCCUPIED	PERIOD 1	OCCUPIED	ERIOD 2	OCCUPIED	PERIOD 3	OCCUPIED	PERIOD 4		
THESPERIOR STITESPECING STITES	MONDAY	SITES	*ECIFIC	JAS JUS	SIFIC	SITESP	ECIFIC	345 3TIS	CIFIC		
VEDNESON STIESPECIFIC STIESPEC	TUESDAY	SITESP	>ECIFIC	SITESPE	CIFIC	SITESP	ECIFIC	SITESPE	CIFIC	· ·	
THURSDAY STIESPECIFIC STIESPEC	WEDNESDAY	SITESF	>ECIFIC	SITESPE	OIFIC	SITESP	ECIFIC	SITESPE	OFFIC	119:	
FRIDAY STIESPECIFIC STIESPECIF	THURSDAY	SITESF	PECIFIC	SITESPE	CIFIC	SITESP	ECIFIC	SITESPE	CIFIC		
SATURDAN STIESPECIFIC STIESPECIFIC STIESPECIFIC Laboratory STIESPECIFIC Laboratory STIESPECIFIC Laboratory STIESPECIFIC Laboratory STIESPECIFIC Laboratory STIESPECIFIC Laboratory La	FRIDAY	SITESF	PECIFIC	3ITE SPE	CIFIC	SITESF	ECIFIC	SITESPE	COFFIC		
HOLIDAY STIESPEGIFIC STIESPEGIFI	SATURDAY	SITESF	PECIFIC	SITESPE	CIFIC	SITESF	ECIFIC	SITESPE	COFFIC	(3)	
EQUIPMENT MAHE CAPACITY HANDTAGUE 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 -	HOLIDAY	SITESF	PECIFIC	SITESPE	CIFIC	SITESP	ECIFIC	SITESPE	COFFIC		
EQUIPMENT HAME CAPACITY HOTOR HP HAMUFACTURER MS PUMP-1 SYSTEM SPECIFIC SYSTEM SPECIFIC PD PUMP-1 SYSTEM SPECIFIC SYSTEM SPECIFIC PD PA D D T PA D C C C C C C C C C C C C C C C C C C C C C C C C C C C C C C				EQUIPMENT SC	HEDULE						
PUMPP-1 SYSTEM SPECIFIC SYSTEM SPECIFIC \$50 - 50 - 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	EQUIPMENT NAME	CAPA	SCITT	MOTOR HP	HANUFA	CTURER		MODEL/SERIES	(0.2)	ns	
50 - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	PUMP P-1	SYSTEM	SPECIFIC	SYSTEMSPECIFIC	SYSTEM	SPECIFIC		SYSTEMSPECIFIC		Ан	
0										- 02	
-20 0 60 -20 0 0 -20 0 0 -20 0 0 0 0 0 0 0 0 0											
-20 U -60										ļ .	'
04 TEHP (DEG F)			•							0	
										OA TEMP (DEG F)	

Table 9-6. Database Table for High Temperature HW/HW Converter with Dual Temperature Distribution System.

			1	TSIEM UPERAL	STSTEM UPERMITTE PARAMETERS	•				
PARAMETERS			COOLING				HEATING		SELECTED APPLICATION PROGRAMS	SI
	DEFAULT OCCUPIED SETPOINT	DEFAULT UNOCCUPIED SETPOINT	ALARM LIMIT SETTINGS	DEMAND LIMIT SETPOINT	DEFAULT OCCUPIED SETPOINT	DEFAULT UNOCCUPIED SETPOINT	ALARH LIMIT SETTIMGS	DEMAND LIMIT SETPOINT	SCHEDULED START/STOP OPTIMUM START/STOP ECONOMIZER	H H
									*ENTILATION/BECIRCULATION	
HW SUPPLY IEMP	SEERESEI SCH.		SP +r-5 UEG. r		SEERESEI SCH.		SF +7-5 DEG. F		REHEAT COIL RESET	
SUPPLYTEMP			XXDEG.F				XX DEG. F		BOILER MOMITORING & CONTROL	
RETURNIEMP			XXDEG F				XX DEG. F		CHILLER SELECTION	-
									CONDENSER WATER TEMPERATURE RESET	
SYSTEMFLOW			XXGPM(LOW)				XX GPM (LOW)		HOT WATER OA RESET	M
HIGH TEMP HW SUPPLY			3.230xx				XXDEG.F			
						•			REFER TO SEQUENCE OF OPERATIONS FOR	-
									ADDITIONAL SOFTWARE, SETTING AND	
									DEMAND LIMITING	
									SUMMER STEP 1	
		6							SUMMER STEP 2	
									SUMMER STEP 3	
									WINTER STEP 1	
									WINTER STEP 2	
									ADDITIONAL SETTINGS	
		•								
									PRIMART SUPPLT TEMP RESET SCHEDULE	
			J III J BONY GIIOOO						250 T	
			OCCULANCE S	MEDIOLE						
HOLIDAT	OCCUPIED PERIO	D PERIOD 1	OCCUPIED PERIOD 2	ERIOD 2	OCCUPIED PERIOD 3	PERIOD 3	OCCUPIED PERIOD	ERIOD 4		
SUNDAY	SITES	SITESPECIFIC	SITESPECIFIC	SIFIC	SITESP	SITESPECIFIC	SITESPECIFIC	CIFIC	200	
MONDAY	SITE SPECIFIC	PECIFIC	SITESPECIFIC	SIFIC	SITESPECIFIC	ECIFIC	SITESPECIFIC	OFFIC		
TUESDAY	SITES	SITESPECIFIC	SITE SPECIFIC	SIFIC	SITESPECIFIC	ECIFIC	SITE SPECIFIC	CIFIC		
WEDNESDAY	SITES	SITESPECIFIC	SITESPECIFIC	SIFIC	SITESF	ECIFIC	SITESPECIFIC	CIFIC	93	
THURSDAY	SIIS	SITESPECIFIC	SITE SPECIFIC	OIFIG	SITE SPECIFIC	ECIFIC	SITESPECIFIC	CIFIC	- C 150 +	
CATHERA		PECIFIC	SHESPECIFIC	O LEIO	SILESPECIFIC	ECIPIO	SILESPECIFIC	CPTC		
HOLIDAY	SITES	SITESPECIFIC	SITESPECIFIC	NFIC STATE	SITESPECIFIC	ECIFIC	SITESPECIFIC	DIFIC	31.1.	
			EQUIPMENT SCHEDULE	HEDDLE					+ 100 +	
EQUIPMENT MAME	CAP	CAPACITY	HOTOR HP	HAHUFA	MANUFACTURER		MODELISERIES	9.33	ns	
PUMPP-1	SYSTEM SPECIFIC	SPECIFIC	SYSTEMSPECIFIC	SYSTEM SPECIFIC	SPECIFIC		SYSTEMSPECIFIC		- 02 AH	
									2	
									+ + + 0 + 0	T [®]
									ON TEMP OF	
					•				CH 1577 165011	

Table 9-7. Database Table For Dual Temperature System with Constant Volume Hot Water Circulating Loop And Air-Cooled Chiller.

PARAMETERS WESUPPLYTERP SUPPLYTERP STATEMENT WYSTER/TOW	DEFAULT	000			3 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		100000000000000000000000000000000000000		
SUPPLYTEMP TOWNTEMP TEMPERATURE	DEFAULT			***************************************			HEATING		SELECTED APPLICATION PROGRAMS
SUPPLYTENP PELYTENP URHTENP	SETPOINT	DEFAULT UNOCCUPIED SETPOINT	ALARH LIMIT SETTIMGS	DEMAND LIMIT SETPOINT	DEFAULT OCCUPIED SETPOINT	DEFAULT UNOCCUPIED SETPOINT	ALARH LIMIT SETTIMGS	DEMAND LIMIT SETPOINT	SCHEDULED STARTISTOP OPTIHUM STARTISTOP ECONOMIZER
PELYTENE	SEE RESET SCH.		SP+/-5DEG.F		SEE RESETSCH.		SP +4-5 DEG.F		WENTILATION/RECIRCULATION HOT DECK/COLD DECK TEMPERATURE RESET
PELYTENP URATERP		\$							REHEAT COIL RESET
URNTEMP			XX DEG. F				XXDEG.F		BOILER MOMITORING & CONTROL CHILLER SELECTION
STEMFLOW			XXDEG.F				XXDEG.F		CHILLED WATER TEMPERATURE RESET
			XX GPM (LOW)				(WOT) MAS XX		HOT WATER OA RESET
FLUEGASTEMP			XXDEG.F				XX DEG. F		
FLUE GAS 02			88202				XX x 02		REFER TO SEQUENCE OF OPERATIONS FOR
VUEL FLOW			M95 88				(MOT) MAS XX		ADDITIONAL SOFTWARE, SETTING AND OPERATIONAL REQUIREMENTS
									DEMAND LIMITING
FUEL TEMP			XXDEG.F				XXDEG.F		SUMMER STEP 1 SUMMER STEP 2
									SUMMER STEP 3
									WHIER STEP 2
									ADDITIONAL SETTINGS
									SUPPLY TEMP RESET SCHEDULE
			OCCUPANCT SCHEDULE	HEDULE					250]
DAT OF WEEK!									
SUNDAY	OCCUPIED	OCCUPIED PERIOD 1	OCCUPIED PERIOD 2 SITE SPECIFIC	ERIOD 2	OCCUPIED PERIOD 3 SITE SPECIFIC	PERIOD 3	OCCUPIED PERIOD SITE SPECIFIC	ERIOD 4	300
MONDAY	SITESI	SITESPECIFIC	SITESPECIFIC	SIFIC	SITE SPECIFIC	ECIFIC	SITESPECIFIC	IFIC	
TUESDAY	SITESI	SITESPECIFIC	SITESPECIFIC	YFIC	SITESPECIFIC	ECIFIC	SITE SPECIFIC	HIC	· ·
WEDNESDAY	SITESI	SITESPECIFIC	SITESPECIFIC	SIFIC	SITESPECIFIC	ECIFIC	SITE SPECIFIC	IFIC	93
THURSDAY	SILES	SITESPECIFIC	SITESPECIFIC	YFIC	SITESPECIFIC	ECIFIC	SITE SPECIFIC	IFIC	- 150 +
SATURDAY	SITES	PECIFIC	SITESPECIFIC	MFIC	SITESP	ECIFIC	SITESPEC	FIC	/ ##3
HOLIDAY	SITESI	SITESPECIFIC	SITESPECIFIC	HIC	SITESPECIFIC	ECIFIC	SITE SPECIFIC	FIC	
			EQUIPMENT SCHEDULE	HEDULE					+ 80 44
EQUIPMENT HAME	CAP	CAPACITT	HOTOR HP	MANUFACTURER	CTURER		MODEL/SERIES		ns /
PUMPP-1	SYSTEM	SYSTEMSPECIFIC	SYSTEMSPECIFIC	SYSTEM	SYSTEMSPECIFIC		SYSTEMSPECIFIC		4 H
HWBOILER	SYSTEM	SYSTEMSPECIFIC	SYSTEMSPECIFIC	SYSTEM	SYSTEMSPECIFIC		SYSTEMSPECIFIC		- 20
CHILLER	SYSTEM SPECIFIC	SPECIFIC	SYSTEMSPECIFIC	SYSTEM	SYSTEM SPECIFIC		SYSTEMSPECIFIC		
									03 0 07-
									OA TEMP (DE

Table 9-8. Database Table for Dual Temperature System with Hot Water Boiler and Air Cooled Chiller

PARAMETERS DEFAULT ALLARH DEPAUM DEPAU					
DEFAULT DEFA		HEALING		SELECTED APPLICATION PROGRAMS	
OCCOUNTION SETPOINT SETEPOINT SETEPOINT SETPOINT SETPOINT SETPOINT SETPOINT SETPOINT SETPOINT SETPOINT SETEPOINT SETEPO			DEMAND	SCHEDULED STARTISTOP	
Part	SETPOINT SE	UNOCCUPIED LIMIT SETPOINT SETTINGS	SETPOINT	OPTIMUM START/STOP ECONOMIZER	H
Part				TENTILATION/RECIRCULATION	
Part of the part	SEE RESET SCH.	SP++-5DEG.F		HOT DECK/COLD DECK TEMPERATURE RESET	-
Waster W				REHEAT COIL RESET	
Manuelle Manuelle		XX DEG. P		CHILLER SELECTION	
Machine Mach		XX DEG. F		CHILLED WATER TEMPERATURE RESET	
March Marc				COMDENSER WATER TEMPERATURE RESET	
BATOF VEEK* BATOF BATOF		XX GPM (LOW)		HOT WATER OA RESET	*
BATOF VEEK* BATOF BATOF		XX DEG. F			
BR 100 RECORD R					
March Marc	٥	XX x 02		REFER TO SEQUENCE OF OPERATIONS FOR	
March Marc				ADDITIONAL SOFTWARE, SETTING AND	
MOLICR SYSTEMSPECIFIC STITE PRODUCE		XX GPM (LOW)		OPERATIONAL REQUIREMENTS	
DAT OF VEEK* OCCUPIED PERNOT OCCUPANCT SCHEDULE		5 03G00		CHARGE CITE 4	-
OCCUPIED PERIOD OCCUPANCY SCHEDULE				COLUMN CALLO	-
OCCUPIED PERIOD 1				SUMMER STEP 3	
OCCUPANCT SCHEDULE				VINTER STEP 1	-
OCCUPIED PERIOD 1 OCCUPIED PERIOD 2		0		WINTER STEP 2	
OCCUPANCI SCHEDULE OCCUPANCI SCHEDULE					
OCCUPIED PERIOD 1 OCCUPANCY SCHEDULE				ADDITIONAL SETTINGS	
OCCUPIED PERIOD 1 OCCUPANCY SCHEDULE				SUPPLY TEMP RESET SCHEDULE	
OCCUPANCE SCHEDULE OCCUPANCE SCHEDULE					
OCCUPIED PERIOD 1 OCCUPIED PERIOD 2				250 T	
OCCUPIED PERIOD 1 OCCUPIED PERIOD 2			200		
SITE SPECIFIC SITE SPECIFIC	OCCIIPIEN PERION 2	OD 3 OCCUPIED PERIOD	PERION 4		
STITE_PEOFINO STITE_PEOFINO	SITESPECIFIC		ECIFIC		
STIC SPECIFIC SPECIFIC STIC SPECIFIC SPE	SITESPECIFIC		COLFIC		
SITESPEORIO SITESPEORIO	SITE SPECIFIC		ECIFIC	(4	
STIESPEOFFO STIESPEOFFO	SITESPECIFIC	SITESPECIFIC	COLFIC	93	
STESPEOFIC STITESPEOFIC STITESPEOFIC STITESPEOFIC STITESPEOFIC STITESPEOFIC STITESPEOFIC STITESPEOFIC CAPACITT HOTOR HP SYSTEMSPEOFIC SYSTEMSPEOFIC SYSTEMSPEOFIC SYSTEMSPEOFIC SYSTEMSPEOFIC SYSTEMSP	SITE SPECIFIC		ECIFIC		
STIESPEOPIO STIESPEOPIO	SITE SPECIFIC		ECIFIC		
STIE SPECIFIC STIE SPECIFIC	SITE SPECIFIC		ECIFIC	43)	
CAPAGITT HOTOR HP	SITE SPECIFIC	SITESPECIFIC	EOIFIC		
CAPACITT	**	***	25-	144	I
SYSTEMSPECIFIC SYSTEMSPE	Actilete	Saleday Fladon			
SYSTEMSPECIFIC SYSTEMSPECIFIC SYSTEMSPECIFIC	SPECIFIC	CVCTEM CPECIFIC		- A1	
SYSTEM SPECIFIC SYSTEM SPECIFIC	ISPECIFIC	SYSTEM SPECIFIC		н	
	1SPECIFIC	SYSTEM SPECIFIC		+ 02	
				The State of the S	
***************************************	•			-	T
				-20 0 60	8

Table 9-9. Database Table For Water-Cooled Chiller.

			The second second						The second secon	
PARAMETERS			COOLING				HEATING		SELECTED APPLICATION PROGRAMS	
	DEFAULT	DEFAULT	ALARM	DEMAND	DEFAULT	DEFAULT	ALARM	DEMAND	SCHEDULED START#STOP	
	SETPOINT	SETPOINT	SETTINGS	SETPOINT	SETPOINT	UNOCCUPIED	SETTINGS	SETPOINT	OPTIMUM START/STOP ECOMOMIZER	****
									TEMTILATIOM/RECIRCULATION	
CHWSTEMPERATURE	XXDEG.F		SP(++)0.5DEG.F	XXDEG.F					HOT DECK/COLD DECK TEMPERATURE RESET	
									REHEAT COIL RESET	**
CHWRTEMPERATURE			XXXDEG.F						BOILER MONITORING & CONTROL	
CWSTEMPERATURE	XXDEG F		SP (+4-) 2 DEG. F						CHILLED WATER TEMPERATURE RESET	1
									CONDEMSER WATER TEMPERATURE RESET	
CWRTEMPERATURE			XXXDEG.F						HOT WATER OA RESET	1 1
CHWSFLOW			MASKK							
			•							
CWSFLOW			XXX GPM						REFER TO SEQUENCE OF OPERATIONS FOR	l
1000			10 of 11 o y						ADDITIONAL SOFTWARE, SETTING AND	
									DEMAND LIMITING	1
									SUMMER STEP 1	1
									SUMMER STEP 2	1
									SUMMER STEP 3	
									VINTER STEP 1	
									WINTER STEP 2	1
									ADDITIONAL SETTINGS	
			OCCUPANCT SCHEDULE	CHEDULE				30	=1	
DAT OF WEEK!		, 40,644						, 400	3111	
HOLIDAY	CITEC	CITE COCCIEIO	CITE COLORIO	Serio S	CITE CO	CITE COUNTING	CITECON	CIEIC		
MONDA		CITECOFFIC		760	00110					
THESTA	SILE	CITE CPECIFIC	CITE SPECIFIC	SIFIC	CITECE	SITESTERING	CITE CPECIFIC	CIEIC		
WEDNESDAY	SILE	SITE SPECIFIC	SITE SPECIFIC	MFIC	SITESP	SITE SPECIFIC	SITE SPECIFIC	CIFIC		
THIRSDAY	2112	CITE CPECIFIC	CITICAGE	SIEIC	SITE CE	CITE CPECIFIC	CIBICAGNATIO	01810		
FRIDAY	23112	SITE SPECIFIC	SITESPECIFIC	YFIC	SITES	SITE SPECIFIC	SITE SPECIFIC	CIFIC		
SATURDAY	SITES	SITESPECIFIC	SITESPECIFIC	YFIC	SITESP	SITE SPECIFIC	SITESPECIFIC	CIFIC		
HOLIDAY	SITE SPECIFIC	PECIFIC	SITE SPECIFIC	SIFIC	SITESP	SITESPECIFIC	SITE SPECIFIC	OFFIC		
The state of the s	1000		EQUIPMENT SCHEDULE	HEDULE			The contract of the contract o			
EQUIPMENT NAME	CAP	CAPACITT	MOTOR HP	HANUFACTURER	CTURER		MODEL/SERIES	5 5		
CHILLER	SYSTEM	SYSTEMSPECIFIC	SYSTEMSPECIFIC	SYSTEMSPECIFIC	SPECIFIC		SYSTEMSPECIFIC			
COOLINGTOWER	SYSTEM	SYSTEM SPECIFIC	SYSTEMSPECIFIC	SYSTEMS	SYSTEM SPECIFIC		SYSTEMSPECIFIC			
CHWPUMP	SYSTEM	SYSTEMSPECIFIC	SYSTEMSPECIFIC	SYSTEMSPECIFIC	SPECIFIC		SYSTEMSPECIFIC			
СМРИМР	SYSTEM	SYSTEMSPECIFIC	SYSTEM SPECIFIC	SYSTEMSPECIFIC	SPECIFIC		SYSTEM SPECIFIC			
			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,							

Table 9-10. Database Table For Multi-Zone Air Handling System w/Hot Water and Chilled Water Coils.

				TETEM OPFRAT	CTCTEM OPERATING PARAMETERS	v			
PARAMETERS		500	COOLING	TSIEM UPERAI	ING FARANEIER		HEATING		SHEETED APPLICATION PROGRAMS
	DEFAULT	DEFAULT		DEMAND	DEFAULT	DEFAULT		DEMAND	SCHEDULED START/STOP
	SETPOINT	SETPOINT	LIMIT	SETPOINT	SETPOINT	SETPOINT	LIMIT	SETPOINT	OPTIMUM START#STOP ECOMOMIZER
									*EMTILATIOM/RECIRCULATIOM
MIXED AIR TEMP	PERSEQUENCE		SP (++-)2 DEG.F		PER SEQUENCE		SP (++-)2DEG.F		HOT DECK/COLD DECK TEMPERATURE RESET
HOT DECK TEMP	PERRECETCOL		SP (+1-12 DEG F		PERRECETCON		3 93U c (-f+) d5		ROLL FR MONITORING & CONTROL
									CHILLER SELECTION
COLD DECK TEMP	PERRESETSCH.		SP (++-) 2 DEG.F		PERRESETSCH.		SP (++-) 2 DEG.F		CHILLED WATER TEMPERATURE RESET
									CONDENSER WATER TEMPERATURE RESET
ZONE SPACE TEMP			XXDEG.F	XXDEG.F			XX DEG. F	XXDEG.F	HOT WATER OA RESET
41									
71.15K			XX &C				XX- &C		
LOW TEMP DEVICE			XXDEG.F				XX DEG. F		REFER TO SEQUENCE OF OPERATIONS FOR
									ADDITIONAL SOFTWARE, SETTING AND
									DEMAND LIMITING
									SUMMER STEP 1
									SUMMER STEP 2
									SUMMER STEP 3
									WINTER STEP 1
									WINTER STEP 2
									ADDITIONAL SETTINGS
									HOT DECK TEMP RESET SCHEDULE
									4MP 1000
	SI		OCCUPANCT SCHEDULE	CHEDULE	3000	864			
DAT OF WEEK!									K1
HOLIDAT	OCCUPIED	OCCUPIED PERIOD 1	OCCUPIED PERIOD 2	ER10D 2	OCCUPIED PERIOD 3	PERIOD 3	OCCUPIED PERIOD	ERIOD 4	93
SUNDAY	SITESPECIFIC	PECIFIC	SITESPECIFIC	CIFIC	SITESPECIFIC	ECIFIC	SITESPECIFIC	CIFIC	a)
MONDAY	SITESF	SITESPECIFIC	SITE SPECIFIC	CIFIC	SITESF	SITE SPECIFIC	SITESPECIFIC	CIFIC	
TUESDAY	SITES	PECIFIC	348 3118	CIFIC	SITESF	SITESPECIFIC	SITESPECIFIC	CIFIC	+ 06
WEDNESDAY	SITES	SITE SPECIFIC	SITESPECIFIC	CIFIC	SITE SPECIFIC	ECIFIC	SITE SPECIFIC	CIFIC	55 65 75
THURSDAY	SILESE	SITE SPECIFIC	345 3118	CIFIC	SITESF	SITESPECIFIC	SITESPECIFIC	CIFIC	COLDEST ZONE TEMP (DEG. F)
FRIDAY	SITESF	SITE SPECIFIC	SITE SPECIFIC	CIFIC	SITESF	SITESPECIFIC	SITE SPECIFIC	CIFIC	
SATURDAY	SITES	PECIFIC	SITESPECIFIC	CIFIC	SITESPECIFIC	ECIFIC	SITESPE	CIFIC	
HOLIDAY	SITES	SITESPECIFIC	SITESPECIFIC	CIFIC	SITE SPECIFIC	ECIFIC	SITESPECIFIC	CIFIC	COLD DECK TEMP RESET SCHEDULE
			TOUR BEAT COURT	, nicomire					
THE PROPERTY ASSESSMENT	CARD	CABACITY	an actor	MANIE .	MAMILEACTION		SaldaSr Jacon		
7-50 2850 IGGILD	COCTEM	CINCOLUMN	CHOTOMODEON	Marono	Corollio		CHOTOMODEON		/ ————————————————————————————————————
SUTTITION STOR	SYSTEM	SYSTEMSPECIFIC	SYSTEM SPECIFIC	SYSTEM	SYSTEMSPECIFIC		SYSTEMSPECIFIC		EGK 1E
									40
									HOTTEST ZONE TEMP (DEG. F)

Table 9-11. Database Table For Dual Duct Air Handling System With Hot Water and Chilled Water Coils

PARAMETERS DE	DEFAULT OCCUPIED	COO DEFAULT UMOCCUPIED	COOLING	PSTEM OPERATI	STSTEM OPERATING PARAMETERS				PAKADAGA MOTAALI MAKATA
RITHP KITHP KATTHP AGTTHP AGTTHP PDEVIOE	}	COO DEFAULT UNOCCUPIED	LING	DEMAND	September of the septem				CELECTED ADDITION DOCUMENT
K TEMP KYTEMP AGETTEMP POEVICE		UNOCCUPIED				HEA	HEATING	CHANGE	
K.TEMP COX.TEMP	- ILLOUIS	SETPOINT	ALAKH LIMIT SETTINGS	LIMIT	OCCUPIED SETPOINT	UNOCCUPIED	ALAKA LIMIT SETTIMGS	LIMIT	OFTHUM START/STOP CONOMIZER
KTEMP CKTEMP			4 044 0 0 0 0 0 0		1000		# 0 # 0 # 0 # 0 # 0 # 0 # 0 # 0 # 0 # 0		PENTILATION/RECIRCULATION
ICKTEMP -AGTTEMP -AGTTEMP -AGTTEMP	Decorate a		27 (47) c Deder		150 3500105		2007(24)26		REHEAT COIL RESET
CK TEMP *AGT TEMP *AGT TEMP *POT TEMP	PERRESET SCH.		SP (++-)2DEG.F		PERRESET SCH.		SP (++-)20EG.F		BOILER MOMITORING & CONTROL
'AGETERPE	PER RESET SCH.		SP (++-)2 DEG.F		PER RESET SCH.		SP (++-) 2 DEG.F		CHILLED WATER TEMPERATURE RESET
VESPACETENP TER WIENPOEVICE									CONDENSER WATER TEMPERATURE RESET
TER WTEMPDEWCE		XXDEG.F	XXDEG.F	XXDEG.F		XXDEG.F	XXDEG.F	XX DEG. F	HOT WATER OA RESET
W TEMP DEVICE			O# .XX				03.XX		
#TEMP DEVICE									
			XXDEG.F				XXDEG.F		REFER TO SEQUENCE OF OPERATIONS FOR ADDITIONAL SOFTWARE, SETTING AND
									OPERATIONAL REQUIREMENTS
									DEMAND LIMITING
									SUMMER STEP 2
									SUMMER STEP 3
									WINTER STEP 1
									WINTER STEP 2
									ADDITIONAL SETTINGS
									HOT DECK TEMP RESET SCHEDULE
			OCCUPANCT SCHEDULE	HEDULE		•			ф ф ф ф ф ф ф ф ф ф ф ф ф ф ф ф ф ф ф
DAT OF WEEK!									3 7
HOLIDAT	OCCUPIED PERIOD 1	FRIOD 1	OCCUPIED PERIOD 2	ERIOD 2	OCCUPIED PERIOD 3	PERIOD 3	OCCUPIED PERIOD 4	ERIOD 4	936
	SITE SPECIFIC	CIFIC	SITESPECIFIC	HIC	SITESP	SITESPECIFIC	SITE SPECIFIC	SIFIC	a)
	SITE SPECIFIC	CIFIC	SITE SPECIFIC	SIFIC	SITE SPECIFIC	ECIFIC	SITE SPECIFIC	SIFIC	
TUESDAY	SITESPECIFIC	CIFIC	SITESPECIFIC	MFIC	SITESPECIFIC	EOIFIC	SITESPECIFIC	SIFIC	
THIRSDAY	CITECPE	0110	CITE CPEC	JEIC .	CITECO	FOIFIC	ALCALIC CITE CPET	SIEIC	COLDEST ZONE TEMP (DEG. F)
FRIDAY	SITESPECIFIC	CIFIC	SITESPECIFIC	IFIC	SITESPECIFIC	ECIFIC	SITESPECIFIC	NFIG.	
SATURDAY	SITESPECIFIC	CIFIC	SITESPECIFIC	IFIC	SITESPECIFIC	ECIFIC	SITE SPECIFIC	SIFIC	
HOLIDAY	SITESPECIFIC	CIFIC	SITESPECIFIC	MFIC	SITESPECIFIC	ECIFIC	SITESPECIFIC	YFIC	COLD DECK TEMP RESET SCHEDULE
			EQUIPMENT SCHEDULE	HEDULE					3
EQUIPMENT NAME	CAPACITY	111	MOTOR HP	HAHUFA	MANUFACTURER		MODEL/SERIES		
SUPPLYFANSF-1 RETURNFANRF-1	SYSTEM SPECIFIC SYSTEM SPECIFIC	ECIFIC	SYSTEM SPECIFIC SYSTEM SPECIFIC	SYSTEM	SYSTEM SPECIFIC SYSTEM SPECIFIC		SYSTEM SPECIFIC SYSTEM SPECIFIC		: 1E)
									930)
									40 + + + + + + + + + + + + + + + + + + +
									HOTTEST ZONE TEMP (DEG. F)

Table 9-12. Database Table For Bypass Multi-Zone Air Handling System with Hot Water and Chilled Water Coils

PEFAULT DEFAULT OCCUPIED	######################################	DEMAND LIMIT SETPOINT	DEFAULT OCCUPIED	HEA DEFAULT UNOCCUPIED	HEATING ALARM	DEMAND	SELECTED APPLICATION PROGRAMS SCHEDULED START/STOP
DEFAULT OCCUPTED SETPOINT SETTOINT		DEMAND LIMIT SETPOINT	DEFAULT OCCUPIED	DEFAULT	ALARM	DEMAND	SCHEDULED START/STOP
RITCHP PERSEQUENCE		SETPOINT			LIMIT		OPTIMUM START/STOP
FERRESTISCH	\$F(++)2DGG.F ##DGG.F ##DGG.F ##DGG.F ##DGG.F		SETPOINT	SETPOINT	SETTINGS	SETPOINT	ECONOMIZER
PAGE TEMP	######################################		2011 Cab asa		9 590 cc.147 00		TOT DESCRIPTION OF STREET
PERESTISCH	######################################		2012000000				REHEAT COIL RESET
#DATOF WEEK* DATOF WEEK* HOLIDAT OCCUPIED PERIOD	W.WGG.F		PERRESETSCH		SP (++-)2DEG.F		BOILER MOMITORING & CONTROL
# DEVICE	2011-11-C						CHILLER SELECTION
#P DEVICE	W.066.f	ANDES.			AN DEG. P	ANDEG. P	CONDENSER WATER TEMPERATURE RESET
T OF WEEK! HOLIDAT SUNDAY SITT SPECIFIC TUESDAY SITT SPECIFIC	W W 066. F				XX.W.C.		HOT WATER OA RESET
00001451118 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001415115 00001					XX DEG. F		
OLICIAS IIIS OL							REFER TO SEQUENCE OF OPERATIONS FOR
019343118 019343118 019343118 019343118 019343118							ADDITIONAL SOFTWARE, SETTING AND OPERATIONAL REQUIREMENTS
OLICIAS IIIS OL							DEMAND LIMITING
OCCUPIED PERIOD SITE SPECIFIC SITE SPECIFIC STATE SPECIFIC							SUMMER STEP 1
OLIGIAS IIIS ORCOMPIED PERIOD ORCOMPIED PERIOD							SUMMER STEP 2
00CUPIED PERIOD 01ESPECIFIC STITE SPECIFIC STATE SPECIFIC							SUMMER STEP 3
00CUPIED PERIOD 01COPIED PERIOD							WINIER STEP 1
OCCUPIED PERIOD OCCUPIED PERIOD OCCUPIED PERIOD OCCUPIED PERIOD OCCUPIED PERIOD OCCUPIED PERIOD							
0000145118 0101345118 0110345118 0110345118							ADDITIONAL SETTINGS
00CCUPIED FERIOD SITE SPECIFIC							COLD DECK TEMP RESET SCHEDULE
00CCUPIED PTRIOD SITE SPECIFIC SITE SPECIFIC SITE SPECIFIC SITE SPECIFIC							. 1
00CCUPTED PERIOD SITE SPECIFIC SITE SPECIFIC SITE SPECIFIC SITE SPECIFIC SITE SPECIFIC	OCCUPANCT SCHEDULE	HEDULE					
OHOSE SILE SPECIFIC OHOSE SPECI	OCCIDIEN PERION 2	RION >	OCCIIPIEN PERION 3	PFRION 3	OCCIIPIEN PERION	PERIOD 4	
	SITESPECIFIC	IFIC	SITESP	ECIFIC	SITESPECIFIC	CIFIC	
	SITESPECIFIC	FIC	SITESP	SITE SPECIFIC	SITESPE	CIFIC	
	SITESPEC	FIC	SITESP	ECIFIC	SITESPE	OIFIC	
	SITESPECIFIC	IFIC	SITESP	ECIFIC	SITESPE	CIFIC	09
THURSDAY	SITESPECIFIC	IFIC	SITESP	SITESPECIFIC	SITESPECIFIC	CIFIC	
FRIDAY SITE SPECIFIC	SITESPECIFIC	FIG	SITESP	ECIFIC	SITESPECIFIC	CIFIC	(4.E)
HOLIDAY	SITESPEOIFIC	FIC	SITESPECIFIC	ECIFIC	SITE SPECIFIC	CIFIC	936
				•			a) a1
	EQUIPMENT SCHEDULE	HEDULE					103
	HOTOR HP	MANUFACTURER	CTURER		HODELISERIES		
SUPPLYANSF-1 SYSTEM SECOFIC RETURN FAN RF-1 SYSTEM SPECIFIC	SYSTEM SPECIFIC	SYSTEM SPECIFIC SYSTEM SPECIFIC	SPECIFIC		SYSTEM SPECIFIC SYSTEM SPECIFIC		
							0 9
							60 70 %0
							HOTTEST ZONE TEMP (DEG. F)

Table 9-13. Database Table For VAV Air Handling System with Hot Water and Chilled Water Coils.

INSTALLATION: SITE NAME	AREA:	BLDG:	LOCATION:	STEM OPERATI	STATEM OPERATING PARAMETERS	M STARTUP: II				T
PARAMETERS		00					HEATING		SELECTED APPLICATION PROGRAMS	1000
	DEFAULT	DEFAULT	ALARM	DEMAND	DEFAULT	DEFAULT	ALARM	DEMAND	SCHEDULED START/STOP	н
	SETPOINT	SETPOINT	SETTINGS	SETPOINT	SETPOINT	SETPOINT	SETTINGS	SETPOINT	OPTINUM STARTFSTOP ECONOMIZER	н н
									WENTILATION/RECIRCULATION	**
SUPPLYAIRTEMP			55 DEG. F				XXDEG.F		HOT DECK/COLD DECK TEMPERATURE RESET REHEAT COIL RESET	
MIXED AIR TEMP	PERSEQUENCE		SP (++-) 2 DEG.F		PERSEQUENCE		SP (++-) 2 DEG.F		BOILER MONITORING & CONTROL	
									CHILLER SELECTION	
SPACETEMP			XXDEG.F	XXDEG.F			XXDEG.F	XXDEG.F	CHILLED WATER TEMPERATURE RESET	
FILTER			OM-XX				××.wc		CONDENSER WATER TENTERALORE RESEL	
SUPPLYAIR STATICPRESS.			SYSTEMSPECIFIC				SYSTEMSPECIFIC			
LOW TEMP DEVICE			XXDEG.F				%%DEG.F		REFER TO SEQUENCE OF OPERATIONS FOR ADDITIONAL SOFTWARE, SETTING AND OPPRATIONAL SEQUENEMENTS	
	•								DEMAND LIMITING	
									SUMMER STEP 1	н
									SUMMER STEP 2	
									LINTED CTED 4	•
									WINTER STEP 2	
						•			ADDITIONAL SETTINGS	
			occupance continue	2 111020						
DAT OF WEEK!										
HOLIDAT	OCCUPIE	OCCUPIED PERIOD 1	OCCUPIED PERIOD 2	ERIOD 2	OCCUPIED PERIOD 3	PERIOD 3	OCCUPIED PERIOD 4	ERIOD 4		
SUNDAY	SILES	SITESPECIFIC	SITESPECIFIC	SIFIC	SITESF	SITESPECIFIC	SITESPECIFIC	CIFIC		
MONDAY	SITES	SITESPECIFIC	SITESPECIFIC	SIFIC	SITES	SITESPECIFIC	SITESPECIFIC	CIFIC		
NACADO NA		CITE CECUTIO		71610	00110		CITE CDECIFIC	200		
THURSDAY	SITES	SITE SPECIFIC	SITESPECIFIC	YFIC	SITESP	SITE SPECIFIC	SITE SPECIFIC	CIFIC		
FRIDAY	SITES	PECIFIC	SITESPECIFIC	YFIC	SITESP	SITESPECIFIC	SITE SPECIFIC	CIFIC		
SATURDAY	SITES	PECIFIC	SITESPEC	SIFIC	SITESF	PECIFIC	SITESPE	CIFIC		
HOLIDAY	SITES	SITESPECIFIC	SITESPECIFIC	SIFIC	SITESF	SITESPECIFIC	SITESPECIFIC	CIFIC		
			EQUIPMENT SCHEDULE	HEDULE						
EQUIPHENT NAME	CAP	CAPACITT	MOTOR HP	HANUFA	MANUFACTURER		MODEL/SERIES			
SUPPLYFANSF-1	SYSTEM	SYSTEM SPECIFIC	SYSTEMSPECIFIC	SYSTEM	SYSTEMSPECIFIC		SYSTEMSPECIFIC			

Table 9-14. Database Table For VAV Air Handling System with Return Air Fan and Hot Water/Chilled Water Coils

			1			,			
PARAMETERS		00					HEATING	200	SELECTED APPLICATION PROGRAMS
	DEFAULT OCCUPIED SETPOINT	DEFAULT UNOCCUPIED SETPOINT	ALARM LIMIT SETTINGS	DEMAND LIMIT SETPOINT	DEFAULT OCCUPIED SETPOINT	DEFAULT UNOCCUPIED SETPOINT	ALARH LIMIT SETTINGS	DEMAND LIMIT SETPOINT	SCHEDULED STARTFSTOP OPTIMUM STARTFSTOP ECOMOMIZER

SUPPLYAIRTEMP			XXDEG.F				XXDEG.F		HOT DECK/COLD DECK TEMPERATURE RESET REHEAT COIL RECET
MIXED AIR TEMP	PER SEQUENCE		SP (++-)2 DEG.F		PERSEQUENCE		SP (++-)2 DEG.F		BOILER MOMITORING & CONTROL
4004440			- Pagn	u 94000			n 00000	u 93000	CHILLER SELECTION
			00 DEG. T	on DEG. r			on DEG. T	worker.	CONDENSER WATER TEMPERATURE RESET
FILTER			XX-WC				2M-88		HOT WATER OA RESET
SUPPLY AIR STATIC PRESS.			SYSTEM SPECIFIC				SYSTEMSPECIFIC		
	•								REFER TO SEQUENCE OF OPERATIONS FOR
LOW TEMP DEVICE			XXDEG.F				XXDEG.F		ADDITIONAL SOFTWARE, SETTING AND OPERATIONAL PROLIBEMENTS
									DEMAND LIMITING
RETURNFANFLOW	•		SUPPLYCFM				SUPPLYCFM		SUMMER STEP 1
			(-) MINOACFM				(-) MINOACFM		SUMMER STEP 2
									WINTER STEP 1
									WINTER STEP 2
									APPLITIONAL SETTINGS
			OCCUPANCT SCHEDULE	HEDDLE					
DAT OF WEEK!									
HOLIDAT	OCCUPIE	OCCUPIED PERIOD 1	OCCUPIED PERIOD 2	ERIOD 2	OCCUPIED	OCCUPIED PERIOD 3	OCCUPIED PERIOD 4	ERIOD 4	
SUNDAY	SITE SPECIFIC	PECIFIC	SITESPECIFIC	YFIC	SITESF	SITESPECIFIC	SITE SPECIFIC	OIFIG	
MONDAY	SITE SPECIFIC	PECIFIC	SITESPECIFIC)IFIC	SITES	SITESPECIFIC	SITE SPECIFIC	OIFIC	
TUESDAY	SITES	SITESPECIFIC	SITE SPECIFIC	WF10	SITES	SITE SPECIFIC	SITESPECIFIC	OFFIC	
WEDNESDAY	SHESPECIFIC	FECIFIC	SHESPECIFIC	JE IC	7157	SHESPECIFIC	SHESPECIFIC	CIFIC	
TRUCKOLAT	0110	SILEPPORTO	SITESPECIFIC	200		SILESPECIFIC	SILESPECIFIC		
SATIRDAY	SILE	PECIFIC	SITESPEC	IFIC	2016	SITESPECIFIC	SITE SPECIFIC	CIFIC	
HOLIDAY	SITES	SITE SPECIFIC	SITESPECIFIC	YFIC	SITESF	SITESPECIFIC	SITE SPECIFIC	CIFIC	
			EQUIPMENT SCHEDULE	HEDULE					
EQUIPMENT NAME	CAP	CAPACITT	HOTOR HP	HANUFA	MANUFACTURER		MODEL/SERIES		
SUPPLYFANSF-1 RETURNFANRF-1	SYSTEM SPECIFIC SYSTEM SPECIFIC	SYSTEM SPECIFIC SYSTEM SPECIFIC	SYSTEM SPECIFIC SYSTEM SPECIFIC	SYSTEM	SYSTEM SPECIFIC SYSTEM SPECIFIC		SYSTEM SPECIFIC SYSTEM SPECIFIC		
		•							

Table 9-15. Database Table For Single Zone Air Handling System with Hot Water and Chilled Water Coils

				THE PERSON NAMED IN	****				
				TSIEM UPERAI	STSTEM OF ERRITME PARAMETERS		-		
V V V V V V V V V V V V V V V V V V V	DEFAULT	DEFAULT	ALARM D LIMIT	DEMAND	DEFAULT	DEFAULT	ALARM D LIMIT	DEHAND	SCHEDULED START/STOP OPTIMUM START/STOP
	SETPOINT	SETPOINT	SETTINGS	SETPOINT	SETPOINT	SETPOINT	SETTINGS	SETPOINT	FECHOMIZER
MIXED AIR TEMP	PER SEQUENCE		SP (++-) 2 DEG.F		PERSEQUENCE		SP (++-)20EGF		HOT DECK/COLD DECK TEMPERATURE RESET
SPACETEMP			XXDEG.F	XXDEG.F			XXDEG.F	XXDEG.F	REHEAT COIL RESET BOILER MONITORING & CONTROL
									CHILLER SELECTION
FILTER			OM.XX				OM.XX		CHILLED WATER TEMPERATURE RESET
LOW TEMP DEVICE			XXDEG.F				XXDEG.F		HOT WATER OA RESET
									REFER TO SEQUENCE OF OPERATIONS FOR
									ADDITIONAL SOFTWARE, SETTING AND OPERATIONAL REQUIREMENTS
									DEMAND LIMITING
									SUMMER STEP 1
									SUMMER STEP 2
									SUMMER STEP 3
									WINTER STEP 1
									WINTER STEP 2
									ADDITIONAL SETTINGS
	26		OCCUPANCT SCHEDULE	CHEDULE	0.000				
DAT OF WEEK!									
HOLIDAT	OCCUPIED	OCCUPIED PERIOD 1	OCCUPIED PERIOD 2	ERIOD 2	OCCUPIED	OCCUPIED PERIOD 3	OCCUPIED PERIOD 4	PERIOD 4	
THOUSE	0110	SILESTEORING	SILESPECIFIC	VIEW	0110	SILESPECIFIC	OTTESPECIFIC	0110	
THEODER	OTTOGGE	TECHTIC	CITECOECIEIO	760	CITECO	CITE CECOLEIO	CITE OPENIED	OLLO	
WEDNESDAY	SITES	SITESPECIFIC	SITESPECIFIC	SIFIC	SITESF	SITESPECIFIC	SITESPECIFIC	OFFIC	7
THURSDAY	SITESF	SITE SPECIFIC	SITESPECIFIC	SIFIC	SITESF	SITESPECIFIC	SITE SPECIFIC	CIFIC	
FRIDAY	SITESF	SITESPECIFIC	SITESPECIFIC	OIFIC	SITESF	SITESPECIFIC	SITESPECIFIC	CIFIC	
SATURDAY	SITESF	SITESPECIFIC	SITESPECIFIC	OIFIC	SITESF	SITESPECIFIC	SITESPE	CIFIC	
HOLIDAY	SITESF	PECIFIC	SITE SPECIFIC	CIFIC	SITESF	PECIFIC	SITE SPECIFIC	CIFIC	
			TOURNESS COURTING	a mount	2.2				
EQUIPHENT HAME	CAP	CAPACITT	MOTOR HP	HANUE	MANUFACTURER		HODEL/SERIES		To the state of th
SF4	SYSTEM	SYSTEM SPECIFIC	SYSTEMSPECIFIC	SYSTEMSPECIFIC	SPECIFIC		SYSTEM SPECIFIC		
	·		-						

Table 9-16. Database Table For Single Zone Air Handling System with Humidification.

INSTALLATION: SITE NAME	AREA:	BLD6:	LOCATION:		ALARM DELAT ON STARTUP: XX	H STARTUP: II			3.444	
			S	TSTEM OPERAT	STSTEM OPERATING PARAMETERS	15				
PARAMETERS			COOLING			HEA	HEATING		SELECTED APPLICATION PROGRAMS	
	DEFAULT	UNOCCUPIED	ALARH	DEMAND	DEFAULT	DEFAULT	ALARH	DEMAND	SCHEDULED START/STOP OPTIHUM START/STOP	н н
	SETPOINT	SETPOINT	SETTINGS	SETPOINT	SETPOINT	SETPOINT	SETTINGS	SETPOINT	ECONOMIZER	
MIXED AIR TEMP	PER SEQUENCE		SP (+4-) 2 DEG. F		PER SEQUENCE		SP (++-)2 DEG.F		HOT DECKACOLD DECK TEMPERATURE RESET	•
									REHEAT COIL RESET	
RETURNAIR HUMIDITY (RH)			XXRH				XXBH		BOILER MONITORING & CONTROL	
DISCHARGEHUMIDITY (RH)			H				XXBH		CHILLED WATER TEMPERATURE RESET	
									CONDENSER WATER TEMPERATURE RESET	
SPACETEMP			XXDEG.F	XXDEG.F			XX DEG.F	XXDEG.F	HOT WATER OA RESET	
FILTER			OM.XX				om.xx			
100000000000000000000000000000000000000										
LOW TEMP DEVICE			XXDEG.F				XXDEG.F		REFER TO SEQUENCE OF OPERATIONS FOR ADDITIONAL SOFTWARE, SETTING AND	
						•			OPERATIONAL REQUIREMENTS	
									DEMAND LINITING	
									SUMMER STEP 1	н
									SUPPLIES A FEW A	
									WINTER STEP 1	*
						•			WINTER STEP 2	
									ADDITIONAL SETTINGS	8
		8	OCCUPANCT SCHEDULE	HEDULE				8		
DAT OF WEEK!	OCCUPATION PERI	D PERIOD 4	OCCUPIED PERIOD 2	FRION 2	ACCIIPIEN PERION 2	PFRION 3	OCCIDIEN PERION	PERIOD 4		
SUNDAY	SITES	PECIFIC	SITESPECIFIC	OIFIC	SITESPECIFIC	ECIFIC	SITESPECIFIC	CIFIC		
MONDAY	SITESPECIFIC	PECIFIC	SITE SPECIFIC	OIFIC	SITESF	SITE SPECIFIC	SITESPECIFIC	CIFIC		
TUESDAY	SITES	SITE SPECIFIC	SITE SPECIFIC	OIFIC	SITESPECIFIC	ECIFIC	SITE SPECIFIC	COLFIC		
WEDNESDAY	SITES	SITESPECIFIC	SITE SPECIFIC	SIFIC	SITESF	SITE SPECIFIC	SITE SPECIFIC	COFFIC	•	
THURSDAY	SITE SPECIFIC	PECIFIC	SITE SPECIFIC	OIFIC	SITES	SITESPECIFIC	SITE SPECIFIC	CIFIC		
SATIBLE	VIIV	SITESPECIFIC	SITESPECIFIC	2000	SILESPECIFIC	FOILIG	SILESPECIFIC	0110		
HOLIDAY	SITESPECIFIC	PECIFIC	SITESPECIFIC	SIFIC	SITESPECIFIC	EOIFIC	SITESPECIFIC	COIFIC		
			EQUIPMENT SCHEDULE	HEDOLE						
COOLUMN HANK	CHE	CHERCIT	CHOTON COLOR	HANDER	CHANGE	000000000000000000000000000000000000000	CHUTCHERES			
		210316	21212121212	1910			SISIELISTEOILIS			
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		20								

Table 9-17. Database Table For Single Zone Air Handling System with Hot Water And DX Refrigeration Coils.

PERSEQUENCE PERSEQ		ī	TSTEM OPERAT						
RITCHP SETPOINT SCHOOLSTOCK SETPOINT SCHOOLSTOCK SETPOINT SCHOOLSTOCK SCHOOLST	000	2001190		STSTEM OPERATING PARAMETERS		UEATING		CELECATED ADDITION OF THE CENTER OF THE CENT	
RITCHP FERSEQUENCE TEMP TEMP TEMP TO SECULATE TO SECURATE TO SECULATE TO SECURATE TO SECULATE TO SECUL	DEFAULT	ALARM	DEMAND	DEFAULT	DEFAULT	ALARM	DEMAND	SCHEDULED STARTFSTOP	
TEAP PECUCE	UNOCCUPIED	SETPOINT	SETPOINT	SETPOINT	UNOCCUPIED	SETTINGS	SETPOINT	OPTIMUM START/STOP ECONOMIZER	н н
IEMP FER:								*EMTILATIOM/RECIRCULATIOM	H
TEMP TEMP TO BAY OF WEEK! HOLIDAT		SP (++-) 2 DEG.F		PER SEQUENCE		SP (++-) 2 DEGF		HOT DECK/COLD DECK TEMPERATURE RESET	
THE PRINCE DAY OF WEEK!								REHEAT COIL RESET	
P DEFICE BAY OF WEEK		ANDEG.F	ANDEG.			AA DEG. F	AN DEG. P	CHILER SCIECTION	
PDEVICE DAT OF WEEK!		2M.XX				0M.XX		CHILLED WATER TEMPERATURE RESET	
T OF VEEK								CONDENSER WATER TEMPERATURE RESET	
		XXDEG.F				XX DEG. F		HOT WATER OA RESET	
								REFER TO SCOTIENCE OF ORDER & TIONS FOR	
								ADDITIONAL SOFTWARE, SETTING AND OPERATIONAL REQUIREMENTS	
	•							DEMAND LIMITING	
								SUMMER STEP 1	M
								SUMMER STEP 2	
								SUMMER STEP 3	
								WINTER STEP 1	H
								WINTER STEP 2	
								78011137 180011001	
					•				
		OCCUPANCT SCHEDULE	HEDULE					T	
								1 :	
	ERIOD 1	OCCUPIED PERIOD 2	ERIOD 2	OCCUPIED PERIOD 3	PERIOD 3	OCCUPIED PERIOD 4	PERIOD 4	501	
	IFIC	SITESPECIFIC	SIFIC	SITESP	SITESPECIFIC	SITESPECIFIC	COLFIC	•	
MONDAY SITE SPECIFIC	900	SITE SPECIFIC	OIFIC	SITE SPECIFIC	ECIFIC	SITESPECIFIC	COFFIC		
*	FIG	SITE SPECIFIC	SIFIC	SITESPECIFIC	ECIFIC	SITESPECIFIC	CIFIC		
	FIC	SITESPECIFIC	SIFIC	SITESPECIFIC	ECIFIC	SITESPE	CIFIC		
•	IFIC	SITESPECIFIC	SIFIC	SITESPECIFIC	ECIFIC	SITE SPECIFIC	COLFIC	•	
*	FIC	SITESPEC	SIFIC	SITESP	ECIFIC	SITESPE	COFFIC		
HOLIDAY	FIC	SITESPECIFIC	SIFIC	SITESP	SITE SPECIFIC	SITESPECIFIC	COFFIC		
		FOIIIPHENT SCHEDIII F	HEDIII E					2d	
EQUIPMENT NAME CAPACITY	1	HOTOR HP	HAHUFA	MANUFACTURER		MODEL/SERIES		Tere	
in	CIFIC	SYSTEMSPECIFIC	SYSTEM	SYSTEMSPECIFIC		SYSTEMSPECIFIC			
								\$ 1000 B	
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Table 9-18. Database Table Heating And Ventilating System.

	INSTALLATION: SITE NAME	AREA:	BLDG:	LOCATION:		ALARM DELAT	ALARM DELAT ON STARTUP: II				
Column C					TSTEM OPERAT	ING PARAMETER.					
Columnia	PARAMETERS			JLIN6				TIME		SELECTED APPLICATION PROGRAMS	
Column		DEFAULT	DEFAULT	ALARH	DEMAND	DEFAULT	DEFAULT	ALARH	DEHAND	SCHEDULED START/STOP OPTIHUM START/STOP	н н
Page		SEIFUINI	SEIFUIN	SELLINGS	SEIFUIN	SEIFUIN	>FILLONIA	SELLINGS	SEIFUINI	FENTILATION/RECIRCULATION	H
DAY OF WEEK)	XED AIR TEMP					PERSEQUENCE	0	SP (++-) 2 DEG. F		HOT DECK/COLD DECK TEMPERATURE RESET	-
OCCUPATION STEELINGS STEELING STEELI										REHEAT COIL RESET	
POCUVIC Part	ACETEMP							XXDEG.F(L0)		BOILER MONITORING & CONTROL	
# PECUNG DATA OF WEEK SHIEFFECHIO THESPAN THESP	0 7 0 1 0 0							2 22000		CHILLER SELECTION	
POCKUCA POCK								10000		CONDENSER WATER TEMPERATURE RESET	
OCCUPANCE SCHEDULE	W TEMP DEVICE							XX DEG. F		HOT WATER OA RESET	
DATO FEELY DATO FEELON D	158							OM			
OCCUPIED PERIOD 1 OCCUPIED PERIOD 2 OCCUPIED PERIOD 3											
OCCUPIED PERIOD OCCUPIED PERIOD 2 OCCUPIED PERIOD 3 OCCUPI										REFER TO SEQUENCE OF OPERATIONS FOR	
Occupance Occu										ADDITIONAL SOFTWARE, SETTING AND	
Occupance Occu										OPERATIONAL RECOINEMENTS	
OCCUPANCT SCHEDULE OCCUPTANCT SCHEDULE STITE SECURIO S										SHAMER STEP 4	
OCCUPIED PERIOD 1										SUMMER STEP 2	
OCCUPIED PERIOD 1										SUMMER STEP 3	
OCCUPANCY SCHEDULE OCCUPEND 3 OCCUPEND										WINTER STEP 1	*
OCCUPANCI SCHEDULE							•			WINTER STEP 2	
OCCUPANCT SCHEDULE OCCUPANCT SCHEDULE											
OCCUPIED PERIOD OCCUPANCT SCHEDULE										ADDITIONAL SETTINGS	S
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OCCUPIED PERIOD 1											
OCCUPIED PERIOD 1 OCCUPIED PERIOD 3											
OCCUPIED PERIOD 1 OCCUPIED PERIOD 2 OCCUPIED PERIOD 3				OCCUPANCT S	CHEDULE				8		
STIESPECING STIESPECING STIESPECING	DAT OF WEEK					dianogo			7 001010		
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STIE SPECIFIC STIE SPECIFI	MONDAY	SITESF	FCIFIC	SITESPE	CIFIC	SITESE	FOIFIC	SITESPE	CIFIC		
STITE SPECIFIC STIT	TUESDAY	SITESF	ECIFIC	SITESPE	CIFIC	SITESF	ECIFIC	SITE SPE	TOIFIC		
STIC SPECIFIC STIC SPECIFI	WEDNESDAY	SITESF	ECIFIC	SITESPE	CIFIC	SITESP	FOIFIC	SITESPE	COIFIC		
STIC SPECIFIC STIC STIC STIC STIC STIC STIC STIC ST	THURSDAY	SITES	PECIFIC	SITESPE	CIFIC	SITESF	YECIFIC	SITESPE	COFFIC		
STIE SPECIFIC STIE SPECIFIC	FRIDAY	SITESF	>ECIFIC	SITESPE	CIFIC	SITESF	PECIFIC	SITESPE	COFFIC		
STIE SPECIFIC STIE SPECIFIC	SATURDAY	SITESF	PECIFIC	SITESPE	CIFIC	SITESF	ECIFIC	SITESPE	TOIFIC		
CAPACITT	HOLIDAY	SITESF	PECIFIC	SITESPE	CIFIC	SITESF	ECIFIC	SITESPE	SCIFIC		
SYSTEMSPECIFIC SYSTEMSPECIFIC SYSTEMSPECIFIC SYSTEMSPECIFIC STATEMSPECIFIC STATEM				FOUIPHENT	SHEDIII E						
SYSTEM SPECIFIC STISTEM SPECIFIC	EQUIPMENT HAME	CAPA	CITT	HOTOR HP	HANUFA	ACTURER		HODEL/SERIES	(50)		
	SUPPLYFAN(SF-1)	SYSTEM	SPECIFIC	SYSTEMSPECIFIC	SYSTEM	SPECIFIC		SYSTEMSPECIFIC			
										•	